

VI. ATTACHMENTS			
Attachment		Page	*LMIS/LOLA File Name
A	Exhibit A	A	
1	Conditions of Approval	A-1	
2	Conclusions	A-5	
3	Referral Comments		
3a	Planning, Comprehensive Planning	A-6	COMP PLAN REF3 01-28-11
3b	Historic Preservation Planner/County Archaeologist/County Urban Forester	A-14	ARCH-HIST REF3 02-17-11
3c	Building & Development, Environmental Review Team	A-17	ERT REF3 01-26-11
3d	Building and Development, Zoning Administration	A-19	ZONING REF3 02-02-11
3e	Office of Transportation Services	A-28	OTS REF3 02-27-11
3f	Parks, Recreation and Community Services	A-78	PARKS REF3 01-10-11
3g	Health Department - Environmental	A-85	HEALTH REF3 01-04-11
3h	Loudoun Water	A-86	LCSA REF2 09-28-10
3i	Economic Development	A-87	ECON DEV REF1 04-24-09
3j	Town of Leesburg	A-89	TOL REF3 02-24-11
3k	Virginia Department of Conservation and Recreation	A-92	VDCR REF1 04-15-09
3l	Virginia Department of Transportation	A-94	VDOT REF3 02-17-11
3m	Disclosure of Real Parties in Interest	A-97	DISCLOSURE 03-01-11
4	Applicant's Statement of Justification	A-114	SOJ2 12-22-10
5	Applicant's Response to Referral Comments		RESPONSE3 02-18-11
6	Applicant's Proffer Statement		PROFFERS 02-18-11
7	Plat		CDP 02-18-11
*These documents can be viewed online on the Loudoun Online Land Applications System (LOLA) at www.loudoun.gov . Paper copies are also available in the Department of Planning.			

Exhibit A

Item	Qty	Unit	Unit Price	Extension
4 lanes of Sycolin Road from the site entrance to Crosstrail Blvd.	4,200	linear feet	\$ 1,500	\$ 6,300,000
Sycolin Road Bridge	300	linear feet	\$ 25,000	\$ 7,500,000
Trail from site entrance to Crosstrail Blvd	4,500	linear feet	\$ 140	\$ 630,000
Utility relocation			\$ 650,000	\$ 650,000
Trail from site entrance to south property line	800	linear feet	\$ 140	\$ 112,000
Total Construction Costs for 4 lanes				\$ 15,192,000
Design Costs for 4 Lanes (15% of Construction)				\$ 2,278,800
Total Construction and Design				\$ 17,470,800
1/2 of the total construction and design for 2 lanes with trail				\$ 8,735,400
50% fair share based on percentage of traffic at full build out				\$ 4,367,700
Anticipated per square foot contribution (\$4,367,700 divided by 4.9 million square feet)				\$ 0.89

**DRAFT DOCUMENT OF WORKING ISSUES
TO ADDRESS
WITH CONDITIONS OR PROFFERS**

(March 2, 2011)

Stonewall Secure Business Park, SPEX-2008-0068 (Office, administrative, business and professional, which do not meet the criteria contained in Section 4-503(G) and Floor area ratio up to 0.60 for office and data center uses), SPEX-2008-0069 (Water storage tank), SPEX-2008-0070 (Water treatment plant), SPEX-2010-0018 (Firearm range, archery range, indoor), and SPEX- 2010-0034 (Utility Substation, Transmission)

1. Substantial Conformance. The development of the Special Exception Uses, "Office, administrative, business and professional, which do not meet the criteria contained in Section 4-503(G)", a Floor Area Ratio up to 0.60 for office and data centers, a Water Storage Tank, a Water Treatment Plant, and Firearm Range, Archery Range, Indoor, and a Utility Substation, Transmission, in the PD-IP (Planned Development – Industrial Park) zoning district, shall be in substantial conformance with these conditions and with the plan set entitled "Stonewall Secure Business Park Zoning Map Amendment Application 2008-0017 Special Exception Applications: 2010-0018 / 2008-0068 / 2008-0069 / 2008-0070 / 2010-0034 Commission Permit Plat 2010-0014" consisting of six (6) sheets numbered as 1 through 6, dated July, 2009, as revised through 2-18-11, and prepared by William H. Gordon Associates, Inc. (the "SPEX Plat"). Approval of this application for Tax Map # /60////////41/ (193-27-9018), Tax Map /61////////13/ (194-49-8227), and the portion of Tax Map # /60////////39/ (194-48-6020), and lying within the "PROPOSED ZONING LINE (PD-IP)" as delineated and labeled on Sheet 5 of the SPEX Plat (the "Property") shall not relieve the Applicant or the owners of the Property from the obligation to comply with and conform to any other Zoning Ordinance, Codified Ordinance, or applicable regulatory requirement. As used in these conditions, the term "Applicant" includes the owner of the Property subject to this Special Exception approval, its successors, and parties developing, establishing or operating the approved Special Exception Uses.
2. Lot Consolidation. Prior to first site plan approval, the Property shall be consolidated into one (1) parcel.
3. Back-Up Generators. Emergency back-up generators or equipment shall not be located within Land Bays A, B, and C. The Applicant shall install baffling walls or other noise attenuation measures to ensure that noise generated by emergency back-up generators complies with Section 5-1507 of the Revised 1993 Zoning Ordinance.
4. Indoor Firearm Range. The indoor firearm range shall not be located within Land Bays A, B, and C. The Applicant shall use noise attenuation measures as

necessary to ensure that noise generated by the indoor firearm range complies with Section 5-1507 of the Revised 1993 Zoning Ordinance.

5. Noise. The Applicant shall coordinate with the Green Energy Partners/Stonewall Property Owners to stagger maintenance testing of data center back-up generators so as not to coincide with peaker combustion turbine operation for the purpose of minimizing noise impacts.
6. Open Space. The Property shall consist of a minimum of fifty percent (50%) open space, as defined in the Revised General Plan.
7. Buffer Adjacent to Residential. The Applicant shall plant and maintain a Type IV Buffer along the Property boundary adjacent to Land Bays B and C for as long as the abutting properties are a residential zoning district.
8. Areas Reserved for Non-Data Center Parking. Until such time that data center uses are converted to non-data center office uses, the Applicant shall maintain as natural open space the land area within the areas labeled on the SPEX Plat as "POTENTIAL BUILDING / PARKING & LOADING AREAS" that would accommodate the parking areas for such non-data center office parking.
9. Screening Mechanical Equipment and Data Interconnect Buildings – Mechanical equipment (i.e. generators, chilling plants, etc.) and data interconnect buildings shall be screened from adjacent residential properties, Sycolin Road, and the Dulles Greenway. Screening methods shall include, but not be limited to, fencing, walls of similar construction to the buildings on site, or landscaping.
10. Water Tank. The water tank shall not exceed a height of one-hundred and twenty feet (120') and shall be a light, neutral color or a color to match the sky.
11. Land Disturbing Activity. Land disturbing activity, including but not limited to that associated with perimeter security treatments, supplemental plantings, fencing, berm, roadside swales, impenetrable or trespass deterrent plantings, and the construction or widening of the Sycolin Road entrance to the Property, shall not encroach into the boundaries of the Sycolin Road Pottery Site, "EX. ARCHAEOLOGICAL SITE # 44LD1195" ("Site 44LD1195"), as labeled on the "SPEX Plat", unless otherwise coordinated with the County Archaeologist in accordance with these Conditions.
12. Tree Removal. Any tree removal within the boundaries of Site 44LD1195 shall adhere to the following Conditions with the express intent of avoiding disturbance of or impact to Site 44LD1195:
 - a) Tree removal shall only occur in coordination with the County Archaeologist and County Urban Forester.
 - b) Heavy machinery shall not be located within the boundaries of Site 44LD1195.

- c) Tree removal shall only occur when soils are dry and hard.
- d) Notwithstanding the existing fallen trees with exposed root balls, any trees cut shall be cut leaving the root and duff in place.

13. Replanting. Any buffers and plantings associated with the "LANDSCAPE BUFFER / PERIMETER TREATMENT", as labeled on the SPEX Plat, shall not apply to the delineated boundaries of Site 44LD1195. Any planting, re-planting, seeding, or any other treatment within the delineated boundaries of Site 44LD1195 shall take place in coordination with the County Archaeologist and Urban Forester and with the express intent of avoiding disturbance of or impact to Site 44LD1195.

14. Tree Save Areas. Exclusive of Site 44LD1195, the Applicant shall reforest areas labeled on the SPEX Plat as "TREE SAVE AREA (TYP)" ("TSAs"), in accordance with a Reforestation Plan developed in coordination with the County Urban Forester and in accordance with the following Conditions:

- a) In conjunction with the first site plan or construction plans and profiles application, the Applicant shall post a bond with the County in an amount sufficient to cover the cost of implementing the Reforestation Plan.
- b) Reforestation plant material within TSAs shall consist of one-inch (1") caliper native trees at a minimum density of one hundred (100) trees per acre or smaller plant material (3-gallon containerized, bare root seedlings, etc.), as coordinated with the County Urban Forester.
- c) The Applicant shall implement such Reforestation Plan no later than one (1) growing season after the beginning of construction.
- d) The Applicant shall ensure a minimum of eighty percent (80%) of the initial planting is determined to be established after two growing seasons. The Applicant shall conduct an annual inspection, in coordination with the County Urban Forester, to verify such establishment. If the eighty percent (80%) establishment is not achieved after the second growing season, the Applicant shall conduct a one (1) time planting to bring the TSAs to full stocking.

15. White Oak Tree. The Applicant shall preserve the approximately forty-inch (40") diameter breast height (dbh) White Oak located along the Sycolin Road frontage of the Property. The Sycolin Road entrance to the Property and widening of such entrance shall be located to accommodate the preservation of such White Oak. The Applicant shall protect the Critical Root Zone of such White Oak, measuring sixty feet (60') from the trunk in all directions, and shall implement a Tree Invigoration Program, as coordinated with the County Urban Forester, for such White Oak. All site plans for the Property shall depict such White Oak Tree and shall label such White Oak Tree as a Tree Save Tree.

16. Traffic Study. Prior to exceeding 500,000 square feet of office uses, exclusive of data centers, and in conjunction with the submission of the first site plan application for development of such uses, the Applicant shall submit a new traffic study for such uses to the County for review and approval, and the Applicant shall install the improvements recommended in the traffic study in the timeframe recommended in the traffic study.
17. Signal Warrant Study. No earlier than one (1) year prior to build out of the project, the Applicant shall submit to VDOT a signal warrant study. Such signal warrant study shall be provided in a separate booklet and shall provide alternatives other than a traffic signal.
18. Turn Lanes and Tapers. Prior to exceeding 3 million square feet of development, the Applicant shall construct dual westbound left-turn lanes out of the site at the site-access driveway.
19. Floor Area Ratio - The 0.6 FAR applies only to data center and office uses.

CONCLUSIONS


1. The proposed building height, scale, and intensity are inconsistent with the land use policies for the Lower Sycolin subarea of the Transition Policy Area and incompatible with the residential uses to the west.
2. The application can not screen views of 100-foot tall buildings from Sycolin Road and the Dulles Greenway or from adjacent residential uses and does not address building design.
3. The Applicant does not propose an innovative design such as extensive or enhanced open space to screen or blend the project within the Transition Policy Area.
4. The application does not adequately address the preservation of archaeological site #44LD1195.
5. The application does not adequately mitigate its Phase 3 transportation impacts.
6. The application does not provide the 70-foot dedication of right-of-way for Cochran Mill Road, as called for in the Countywide Transportation Plan.
7. The application adequately mitigates its lighting and noise impacts.
8. The application provides for the protection of the wood turtle.
9. The application provides for water quality protection and erosion and sediment control measures.
10. The Energy and Communication Facilities Policies of the Revised General Plan support the timely delivery of electrical service to businesses as development occurs. New Technology Companies such as data centers have a positive net fiscal impact to the County, but have specialized infrastructure needs, such as the proposed utility transmission substation.
11. The application provides for public trails within the Philip A Bolen Park and the W&OD Trail (\$15,000).
12. The application provides a Fire and Rescue contribution (\$490,000) that is consistent with County policy.

County of Loudoun
Department of Planning

MEMORANDUM

DATE: January 28, 2011

TO: Judi Birkitt, Project Manager
Land Use Review

FROM: Joe Gorney, AICP, LEED AP, Senior Planner
Community Planning 

SUBJECT: ZMAP 2008-0017, Stonewall Secure Business Park (SSBP), 3rd Referral
SPEX 2008-0068, SSBP - Office & 0.6 FAR, 3rd Referral
SPEX 2008-0069, SSBP - Water Storage Tank, 3rd Referral
SPEX 2008-0070, SSBP - Water Treatment Plant, 3rd Referral
SPEX 2010-0018, SSBP - Indoor Firearm Range, 3rd Referral
SPEX 2010-0034, SSBP - Utility Substation, Transmission, 1st Referral
CMPT 2010-0014, SSBP - Utility Substation, Transmission, 1st Referral

EXECUTIVE SUMMARY

The application proposes 4.9 million square feet of office and industrial uses at a Floor Area Ratio (FAR) of 0.6. A Special Exception and a Commission Permit request for a utility substation were added as part of the most recent submittal.

While the County anticipates that non-residential uses could help achieve a visual and spatial transition from suburban to rural land uses, the intensity of the proposed uses is a significant departure from County land use policies.

Additionally, the proposal does not integrate elements of the Green Infrastructure into the development, develop natural open spaces as a predominant visual element and enhancement to the area's river and stream corridors, or demonstrate that the development would be compatible with the low-density residential development existing or planned in other portions of the Subarea.

Staff does not support the proposed rezoning and associated SPEX requests for office development at 0.6 FAR, a water storage tank, a water treatment plant, or an indoor firearm range as proposed.

This referral supplements the 1st Referral, dated May 21, 2009, and the 2nd Referral, dated September 22, 2010.

BACKGROUND

Stonewall Creek LLC requests a Rezoning Amendment to rezone approximately 193 acres from TR-10 (Transitional Residential - 1 dwelling unit per 10 acres) to PD-IP (Planned Development – Industrial Park). The applicant also requests five Special Exceptions to allow office development with a 0.6 FAR, a water treatment plant, a water storage tank, an indoor firearm range, and a utility substation, a Commission Permit to allow a utility substation, and four Zoning Modifications. The proposal would result in up to approximately 4.9 million square feet of office and industrial uses. The subject property is located in the Transition Policy Area. The County's vision for the Transition Policy Area is for land uses that provide a visual and spatial transition between the suburban development in the east and rural development in the west.

OUTSTANDING ISSUES

Electrical Substation

The most recent submittal includes a Special Exception and a Commission Permit request for a utility substation. Loudoun County policies support the timely delivery of electrical service to businesses as development occurs. The County recognizes that new technology companies, such as computer data centers, have a positive net fiscal impact to the County but have specialized infrastructure needs, such as additional electrical power (Revised General Plan, Chapter 2, Energy and Communication Facilities text). The County aims to accommodate the changing technological requirements of capital-intensive technology industries while balancing any potential harmful environmental effects on the community (Revised General Plan, Chapter 2, Energy and Communication Policy 5).

The proposed substation would support economic development activity by providing service to the proposed data centers. However, staff can not support the proposed substation until the outstanding issues associated with the application are resolved.

Land Use

With a proposed density of 0.6 FAR, a potential building area of 4.9 million square feet, and maximum building heights of 100 feet for more than half of the building areas, the proposed development more closely reflects a suburban-style industrial and office complex than the rural character envisioned for non-residential uses within the Transition Policy Area. While non-residential uses may be reasonable for all or a portion of the site given the proximity of a proposed power plant, quarry, and water treatment plant, the scale of the proposed development is incompatible with the rural

character, lower densities, and higher open space requirements envisioned for the Lower Sycolin subarea (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding land use).

Open Space

The Lower Sycolin subarea is anticipated to have the highest amount of open space of the six Transition Policy Area subareas. As proposed, approximately 51 percent of the development area is designated as "Potential Open Space." However, it appears that the open space area would be reduced by the construction of a water storage tank, a water treatment plant, parking, two Data Interconnect Buildings, an Electrical Substation, and the planned alignment of a Countywide Transportation Plan road (Cochran Mill Road). With the exception of designated Tree Save Areas and identified Green Infrastructure resources, such as wetlands and steep slopes, the disposition of the remaining open space is unclear, including the outparcel on the south side of the Dulles Greenway. County policies state that open spaces should be left in a mostly undeveloped state and that the Green Infrastructure resources within those spaces should be protected and enhanced. The utility of the Potential Open Space as a managed natural resource area is questionable if Green Infrastructure resources are eliminated in lieu of security measures and grading changes. Overall, the amount of open space and the protection and enhancement of the Green Infrastructure resources within those spaces have not been adequately addressed (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding open space).

Forest Resources

The project area contains high-quality forest resources, including upland hardwoods and bottomland hardwoods. The applicant's Forest Management Plan cites these resources as the highest priorities for preservation. Upland hardwoods are located primarily between the electric transmission lines and the underground natural gas lines, west of the gas lines, and south of Sycolin Creek. Bottomland hardwoods are located in the floodplain along Sycolin Creek. The site also contains lesser-quality early successional forest comprised primarily of Eastern Red Cedar and Virginia pine. These stands were cited as low priorities for preservation.

The proposed development would result in the elimination of a significant portion of the upland hardwoods, the highest priority forest resource. Tree Save Areas protect only a portion of the upland and bottomland hardwoods and building areas do not appear to have adequately considered them. In addition to providing habitat and increasing soil stability, these resources help filter views of the overhead electric lines and the cleared natural gas easement. Independent of the significance of these forest resources, development of the site as proposed would result in the clearing of areas both to the

east and west of the utility corridors, creating an expansive open area in the central portion of the site.

Without protection and enhancement of the highest priority forest resources, especially in light of their adjacency to the cleared utility corridors, it is unlikely that the project will be able to establish natural open spaces as predominant visual elements and enhancements to the area's river and stream corridors or that the project will blend effectively (visually and spatially) into the area, in fulfillment of County policies (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding forest resources).

Steep and Moderately Steep Slopes

The project area contains 13.5 acres of moderately steep slopes and 4.8 acres of steep slopes. County policies call for a prohibition of land disturbance of steep slopes and special performance standards for moderately steep slopes. While the applicant will avoid areas of steep slopes in accordance with County regulations, the applicant has made no commitments regarding performance standards for moderately steep slopes (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding steep and moderately steep slopes).

Plant and Wildlife Habitats

The site contains habitat for the wood turtle (*Glyptemys insculpta*), a state-threatened species, and other vegetative and wildlife resources. Wood turtle habitat primarily includes Sycolin Creek, adjacent floodplains, and adjacent wetlands. The applicant proposes proffers regarding the wood turtle and a Tree Save Area along portions of Sycolin Creek. The applicant states that construction will be located in areas that do not provide high quality habitat, where practicable. Proffers define actions to be taken prior to land-disturbing activities in wood turtle habitat. Given that the wood turtle habitat has been defined to include sensitive Green Infrastructure resources, it is unclear why land-disturbing activities would be necessary in those areas and why only a portion of those areas have been protected. Additionally, the proffers define much of those areas as a Rivers and Stream Corridor Resources Management Buffer, which allows a range of uses including road construction, bridge construction, stormwater management, drainage improvements, water lines, sanitary sewer lines, slope stabilization, wetlands mitigation, landscaping, and other project utilities.

The proffers do not discuss resource management actions for remaining areas within the Potential Open Space but outside of the Tree Save Areas and the Rivers and Stream Corridor Resources Management Buffer. Additional resource protection could be achieved through an expansion of Tree Save Areas to include the remaining open space areas. Protection measures could include coordination with the County Urban

Forester regarding appropriate forest management and habitat commitments, best management practices, including the transplanting of desirable species and the removal of Virginia pine, long-term maintenance, the removal of invasive species, and the incorporation of indigenous vegetation into the landscape design of the entire development (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding plant and wildlife habitats).

Noise Impacts

Uses proposed within the project site that may produce high levels of noise include data centers (including generators), light manufacturing, security training, and testing facilities. The proposed proffers state that noise from generators will be attenuated through the use of walls, baffles, the placement of generators behind buildings, and other appropriate measures. The applicant did not model the noise impacts, stating that the location, number, noise levels, and testing of generators could not be determined until site plans are filed.

While details regarding noise-generating uses have not yet been determined, additional noise mitigation measures could include a commitment to the enclosure of all high noise-producing uses and a commitment to the reduction of continuous and impact noise levels to no greater than 50 dBA at the property lines of adjacent residences and parks and 60 dBA for all other uses (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding noise impacts).

Lighting

The proposed proffers state that all lighting will be directed downward and inward, full cutoff and fully shielded, and in conformance with the Zoning Ordinance and Facilities Standards Manual. All exterior luminaries shall use a "shoebox" design and cutoff optics, where feasible. Additional commitments may be needed to ensure that lighting is confined to the site and turned off when not needed, unless required for safety or security purposes, and that illumination levels will be no greater than necessary for a light's intended purpose. All lighting should be mounted as low as practicable and preclude light trespass onto adjoining properties, glare to passersby, skyglow, and deterioration of the nighttime environment (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding lighting).

Cultural Resources

Staff's review of cultural resources will be sent under separate cover.

Stormwater Management

In the first two referrals, citing the adjacency of the project to Sycolin Creek, the Goose Creek reservoir, and a drinking water intake, staff recommended that the applicant consider various Low Impact Development (LID) techniques, such as permeable

pavers, porous concrete, cisterns, planted swales, curb cuts, rain gardens, and bioretention filters adjacent to impervious areas. In response, the applicant has proposed a proffer specifying adherence to measures defined in the Virginia Stormwater Management Handbook and the Facilities Standards Manual but has not committed to any specific LID practices (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding stormwater management).

Quarry Compatibility

ZMAP 2010-0006 (QN Expansion - Luck Stone Leesburg), which expanded the Quarry Notification Overlay District, was approved on January 4, 2011. The Overlay District now includes most of the subject property with the exception of a strip of land approximately 400 feet wide along the western edge of the property and adjacent to Sycolin Road.

Staff recommends that all application materials be updated to reflect the expansion of the Quarry Notification Overlay District and that the Concept Plan include a note stating that the property is in an area that may be impacted by quarry operations and blasting.

Bicycle & Pedestrian Accommodations

Both Sycolin Road and Cochran Mill Road are Baseline Connecting Roadways identified in the Bicycle and Pedestrian Mobility Master Plan. Neither the proffers nor the Concept Plan address internal or external bicycle or pedestrian accommodations. Bicycle and pedestrian facilities are particularly important along Sycolin Road given the presence of a Park-and-Ride lot approximately 1½ miles north of the property along Sycolin Road (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding bicycle and pedestrian accommodations).

Building Scale & Form

The Concept Plan depicts building areas and the general location of internal roads. The application proposes 100-foot maximum building heights for more than half of the building areas. Building design is not addressed.

100-foot buildings generally reflect a suburban-style industrial and office complex rather than the rural character envisioned for non-residential uses within the Transition Policy Area. These buildings are especially problematic adjacent to residential properties and the Dulles Greenway.

Additionally, the Concept Plan contains a note stating that the 50-foot landscape buffer and perimeter treatment would not be provided adjacent to PD-GI or MR-HI zoned properties or the Dulles Greenway (Sheet 4, Note 8). The elimination of these buffers would diminish the ability of the proposed development to effectively blend into the area

(see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding building scale and form).

Parking

The Concept Plan and proffers do not address internal landscape treatments of parking. Internal landscape treatments are particularly important given the views of the development from the Dulles Greenway (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding parking).

Water & Wastewater Facilities

The proposed water storage tank would be approximately 120 feet tall and sited on ground that is approximately the same elevation as the Leesburg Executive Airport. The storage tanks would lie approximately one mile to the south of the Leesburg Airport runway and under or near its final approach path. It is unclear whether the applicant has discussed possible water storage tank locations with the Federal Aviation Administration or the Airport Manager to determine whether the proposed water storage tanks present a hazard to air navigation (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding water and wastewater facilities).

MODIFICATIONS

The applicant requests 4 Zoning Ordinance Modifications (ZMODs) for the proposed project relating to Size and Location, Maximum Building Height, Screening and Buffering, and Outdoor Storage and On-Site Parking of Business Vehicles (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding the proposed modifications).

COMMISSION PERMIT

The County will determine the need for new public facilities and will identify suitable sites based on the Revised General Plan, appropriate area plans, land use, and growth policies (Revised General Plan, Chapter 3, General Public Facilities Policy 2).

In accordance with the Revised 1993 Zoning Ordinance, a Commission Permit is required when a public utility or public service facility is constructed to determine if the general location, character, and extent of the proposed use are in substantial accord with the Comprehensive Plan.

The electrical substation is proposed under and adjacent to existing overhead electrical transmission lines. The substation would access the transmission lines and be used to serve the proposed data centers.

Staff is unable to recommend approval of a Commission Permit for the proposed use until the outstanding issues associated with the application are resolved.

RECOMMENDATION

The proposed project is more typical of a high-intensity business park within the Suburban Policy Area than a low-intensity use that will promote a rural character within the Transition Policy Area. The applicant may wish to explore alternative locations or a reduced density commensurate with the Transition Policy Area. Staff does not support the application as proposed.

cc: Julie Pastor, AICP, Planning Director
Cynthia Keegan, AICP, Program Manager (via email)

County of Loudoun
Department of Planning
MEMORANDUM

DATE: February 17, 2011

TO: Judi Birkitt, Project Manager, Land Use Review

FROM: Heidi Siebentritt, Historic Preservation Planner, Joe Gorney, Senior Planner, Michael Clem, Archaeologist, Dana Malone, Urban Forester, William Marsh, Environmental Review Team Leader

SUBJECT: ZMAP 2008-0017 & SPEX 2008-0068, 69 & 70, & SPEX 2010-0018 Stonewall Secure Business Park – 3rd Referral

Background

This memo represents a joint referral the Department of Planning and the Department of Building and Development's Environmental Review Team. This referral specifically address two overlapping, outstanding issues regarding the subject application; 1) the conservation of archaeological site 44LD1195, (Sycolin Road pottery site), and 2) the proposed tree save area along Sycolin Road in the southern portion of the development area. Because site 44LD1195 is located within a portion of the tree save area, the treatment of the tree save area is key to the successful conservation of the archaeological site. The recommendations outlined below are a result of the coordination between referral agencies and a site visit with the applicant on February 16, 2011.

Recommendation

Sycolin Road Pottery Site

Archaeological site 44LD1195 is located within a proposed tree save area. Conservation of the archaeological site in perpetuity, as called for in County Comprehensive Plan policy, requires the following:

1. A current field delineation of the site boundaries. (already in draft proffer IV.19)
2. Metal (long fence type) fencing around the site perimeter inclusive of a 50 foot buffer during construction. (already in draft proffer IV.19)
3. Special treatment of the tree save area where the area overlaps with the delineated boundaries of the archaeological site. Specifically:

ATTACHMENT 3b

- a) The removal of trees within the boundary of site 44LD1195 will be done in coordination with the County Archaeologist and Urban Forester. Heavy machinery should not be used or located within the site boundary to avoid damage to features and artifacts;
 - b) Tree removal within the site boundary should occur when soils are dry and hard. Trees should be cut leaving the root and duff in place;
 - c) No re-planting of trees or vegetation is optimal for the protection of the archaeological site, provided the removal of trees and subsequent treatment of the site area as delineated above is followed.
 - d) Re-planting, seeding or any other treatment of the site desired by the applicant must be done in coordination with the County Archaeologist and Urban Forester with the express intent of avoiding disturbance of, or impact to, site 44LD1195. Any buffer plantings should be located outside of the archaeological site;
4. The location of the entrance to the development should be moved north to accommodate any widening of the entrance in the future without impact to site 44LD1195 and the designated tree save area.

Tree Save Area and White Oak

1. The tree save area should be reconfigured to include the approximately 40-inch diameter breast height (dbh) White Oak which was identified during the site visit.
2. The entrance to the development should be located to accommodate the preservation of the White Oak which is recommended as an entrance feature to the development. Long term preservation of the White Oak will necessitate a commitment to the protection of the Critical Root Zone to 60 feet from the trunk and a "tree invigoration program," as coordinated with the County Urban Forester.
3. The tree save area will be reforested, exclusive of the archaeological site. Staff recommends that the commitment specify the following items agreed to in recent applications:
 - a) The applicant shall work with the County Urban Forester on the development of a reforestation plan;

- b) The reforestation plan shall be submitted to the County Urban Forester for review and approval prior to the approval of the first site plan or construction plans and profiles or grading permit;
- c) The applicant shall post a bond with the County in an amount sufficient to cover the cost of implementing the reforestation plan as part of the site plan or construction plans and profiles application;
- d) Plant material shall consist of 1-inch caliper native trees at a minimum density of 100 trees per acre, or smaller material (3-gallon containerized, bare root seedlings, etc.), as coordinated with the County Urban Forester;
- e) The reforestation shall be implemented no later than one growing season after the beginning of construction;
- f) The applicant shall ensure a minimum of 80 percent of the initial planting is determined to be established after two growing seasons;
- g) An annual inspection shall be conducted by the applicant and the County Urban Forester to verify establishment; and
- h) If the 80 percent establishment is not achieved after the second growing season, a onetime planting to bring the project to full stocking shall be conducted by the applicant.

The recommendations above specifically address the preservation of the archaeological site and the tree save area, inclusive of the White Oak, during the development of the site from the initial phases to build out. To facilitate the continued preservation of these resources into the future, staff recommends that no dedication of right of way for the future widening of Sycolin Road allow further encroachment into the archaeological site or the critical root zone of the White Oak, including any required turn lanes.

cc: Michael "Miguel" Salinas, Program Manager, CIO
Julie Pastor, AICP, Director, Department of Planning
Terrance Wharton, Director, Building and Development


DEPARTMENT OF BUILDING AND DEVELOPMENT

COUNTY OF LOUDOUN

MEMORANDUM

DATE: January 26, 2011

TO: Judi Birkitt, Department of Planning

FROM: William Marsh, Environmental Review Team Leader 

CC: Amy Lohr, Zoning Administration
Joe Gorney, Department of Planning

**SUBJECT: ZMAP-2008-0017 Stonewall Secure Business Park
SPEX-2008-0068 Office use with 0.6 Floor to Area Ratio (FAR)
SPEX-2008-0069 Water Storage Tank
SPEX-2008-0070 Water Treatment Plant
SPEX-2010-0018 Indoor Firearm Range
SPEX-2010-0034 and CMPT-2010-0014, Utility Substation**

The Environmental Review Team (ERT) met to discuss the second submittal on September 20, 2010. ERT offers the following comments:

1. Staff encourages consideration of a timing mechanism for construction of the proposed uses in conjunction with construction of the adjacent, approved rezoning application for Green Energy Partners. If these applications are approved and built without the Green Energy Partners facility being built, several important energy and water conservation opportunities would be lost.
2. The Countywide Transportation Plan depicts an alignment for Relocated Cochran Mill Road in the project area. The Concept Development Plan (CDP) should be revised to reflect this alignment.
3. The applicant acknowledges the location of this project within the Loudoun Water service area. Staff recommends the pursuit of utility agreements that would connect sanitary sewer service to the Town of Leesburg. Otherwise, sanitary sewer service provided by Loudoun Water would require force main installation for treatment at more remote reclamation facilities. The Leesburg facility is closer and could more easily convey effluent by gravity.
4. Augment tree save area proffer language, draft Proffer III.7, to address permanent conservation. Introductory paragraph in Proffer III.9 of approved ZMAP-2009-0005 would satisfy this recommendation.

ATTACHMENT 3c

plans internal to the project area. Staff also recommends amenities within buildings allowing for bicycle storage, changing and shower facilities, consistent with travel demand management strategies encouraged in Chapter 3 of the Countywide Transportation Plan.

12. Staff encourages a more specific commitment to rainwater harvesting as a low impact development commitment in Proffer III.6. Harvesting creates a redundant water source for non-potable water use on site, reducing dependence on either Loudoun Water potable water or Town of Leesburg reclaimed water.
13. Staff continues to encourage a design commitment for post-construction best management practices (BMP) that will prevent the post-development peak discharge rate and volume from exceeding the pre-development peak discharge rate and volume for the 1- and 2- year, 24-hour design storms. Said design commitment would earn a "regional priority credit" with LEED certification and help implement Proffer III.15.
14. Staff commends the applicant for commitments made for wetland mitigation, LEED certification, and turbidity testing.

Specific to substation special exception

15. Staff recommends a condition of approval that will commit to oil/water separation and secondary containment for hotspot uses in the substation area. Similar commitments have been made with prior special exception applications for substations. The intent of the commitment is to contain and treat any spill or leakage of mineral oil typically installed for worker safety on substation sites.

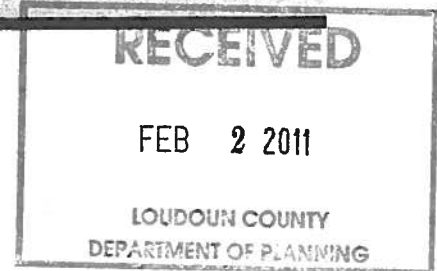
Staff is available to answer any questions.

COUNTY OF LOUDOUN

DEPARTMENT OF BUILDING AND DEVELOPMENT

ZONING ADMINISTRATION REFERRAL

DATE: February 2, 2011
TO: Judi Birkitt, Project Manager, Department of Planning
THROUGH: Marilee L. Seigfried, Deputy Zoning Administrator
FROM: Amy Lohr, Planner, Zoning Administration



CASE NUMBER AND NAME: ZMAP 2008-0017, Stonewall Secure Business Park
SPEX 2008-0068, Office and FAR up to .60
SPEX 2008-0069, Water Storage Tank
SPEX 2008-0070, Water Treatment Plant
SPEX 2010-0018, Indoor Firearm Range
SPEX 2010-0034, Utility Substation, Transmission
CMPT 2010-0014, Utility Substation, Transmission

TAX MAP/PARCEL NUMBER (PIN): Portion of 60/39 (194-48-6020), 60/41 (193-27-9018), and 61/13 (194-49-8227)

Staff has reviewed the third submission of ZMAP 2008-0017/SPEX 2008-0068/SPEX 2008-0069/SPEX 2008-0070, the second submission of SPEX 2010-0018, and the first submission of SPEX 2010-0034/CMPT 2010-0014 to include the materials identified on the transmittal sheet dated December 27, 2010 and the Statement of Justification for SPEX 2010-0034/CMPT 2010-0014 received January 26, 2011. Parcels 60/41 and 61/13 are zoned Transitional Residential-10 (TR-10) and parcel 60/39 is split zoned TR-10 and Planned Development-General Industry (PD-GI). All parcels are subject to the Revised 1993 Loudoun County Zoning Ordinance.

ZMAP 2008-0017 proposes rezoning the subject properties to the Planned Development-Industrial Park (PD-IP) zoning district. The following special exception applications are proposed: 1) Office, administrative, business and professional per Section 4-504(A) including related special exception request for Floor Area Ratio (FAR) up to .60 per Section 4-506(C) for such office uses; 2) Water storage tank per Section 4-504(CC); 3) Water treatment plant per Section 4-504(M); 4) Firearm range, indoor per Section 4-504(DD); and 5) Utility substation, transmission per Section 4-504(K). A commission permit is also requested in conjunction with the utility substation, transmission. The following issues have been identified.

A. CRITICAL ISSUES

1. **SPEX 2008-0068.** This application requests approval of office uses, and additionally that those office uses be allowed at a maximum floor area ratio (FAR) up to .60. However, on Sheet 2, the Overall PD-IP Site Density Tabulation table indicates a proposed FAR of 0.6

for the district. Based on this table, there is no restriction on the .60 FAR, and this table conflicts with the Proposed Spex Land Uses table. The conditions of approval and plat need to clearly state the intended limitations of the FAR special exception. Further, in relation to this special exception, staff suggests limiting the square footage of office (including data center) uses for the district. (Prior comment B.31.) The Applicant's traffic study indicates 4,500,000 square feet of data center uses and 500,000 square feet of office uses at build-out, but there is no commitment to these uses only in the application. Further, this development program would be more consistent with rezoning to the PD-OP district in support of 100% office uses.

2. **Potential Access Points.** Sheets 4 and 5 illustrate a potential access point from the proposed PD-IP district to the existing PD-GI district to the north. Per ZMAP 2009-0005, this PD-GI zone may only be used for a utility generating plant and transmission facility. As such, the zoning of any such private road to this facility would also need to permit this use. A utility generating plant is not permitted in the PD-IP district. Therefore, this access point needs to be removed from the plan. Finally, in relation to potential access points, some land bays do not have an arrow indicating access to such land bay. This should be corrected.
3. **Section 6-1211(E)(1) - *Whether the proposed zoning district classification is consistent with the Comprehensive Plan.*** The site is planned for transition land uses. The proposed rezoning to the PD-IP district is not consistent with the Comprehensive Plan. Zoning staff defers to Community Planning for further comment regarding consistency with the Revised General Plan. (Prior comment A.2.) Additionally, with regard to Route 653 (Cochran Mill Road), the approved concept plan for ZMAP 2009-0005 illustrates a 70-foot right-of-way reservation for realigned Route 653. An adjoining reservation should be made with this application, to be shown on the plat and noted in the proffer.
4. **Sections 6-1300, Special Exception/6-1301, Purpose.** The special exception procedure is designed to provide the Board of Supervisors with an opportunity for discretionary review of requests to establish or construct uses or structures which have the potential for a deleterious impact upon the health, safety, and welfare of the public. Staff maintains that the provided Concept Plan (ZMAP/SPEX/Plat) lacks sufficient detail to review potential impacts. (Prior comment A.3.) Where appropriate to the nature of the use, the conditions of approval and plat should set forth maximum square footages for the special exception uses being requested.
5. **Phasing.** The rezoning proposes up to 4.9 million square feet of development, generating the need for a proffered phasing program to ensure that adequate infrastructure is available at each phase of development. (Prior comments A.6. and D.10.)
6. **Section 6-1211(E)(4) - *Whether adequate utility, sewer and water, transportation, school and other facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned.*** Per sheet 2, up to 4,900,000 square feet of development may occur if the property is rezoned. Adequate transportation infrastructure does not

exist to serve this level of development and the proffer statement does not address the nature and timing of transportation improvements. (Prior comment B.4.)

7. **Section 6-1211(E)(7)** - *The impact that the uses that would be permitted if the property were rezoned will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity and whether the proposed rezoning uses sufficient measures to mitigate the impact of through construction traffic on existing neighborhoods and school areas.* The applicant's proffer statement should outline transportation contributions and improvements related to vehicular, bicycle and pedestrian travel. (Prior comment B.6.) Staff also notes that while data center uses may generate less vehicle trips than other industrial uses and traditional office, the applicant has not committed to a development plan in which the predominant use is data centers.

8. **Section 6-1310, Issues for Consideration.** Revise the statement of justification to address the issues for consideration in relation to the proposed utility substation, transmission.

B. OTHER ISSUES

1. **Section 6-1211(E)(10)** - *Whether the proposed rezoning encourages economic development activities in areas designated by the Comprehensive Plan and provides desirable employment and enlarges the tax base.* The proposed rezoning is not in an area designated for industrial development. (Prior comment B.9.)
2. **Section 6-1211(E)(13)** - *Whether the proposed rezoning encourages the conservation of properties and their values and the encouragement of the most appropriate use of land throughout the County.* See comments A.3. and B.1. above.
3. **Section 6-1310(F)** - *Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses.* (Prior comment B.14.) The applicant's response indicates that additional landscaping or berming will be provided adjacent to the existing residential uses and that special exception uses are not proposed adjacent to existing residential uses. However, special exception uses (office/data center/indoor firearm range) are proposed adjacent to existing residential uses. In addition, there is no commitment to an enhanced buffer. Sheet 2 indicates landscape buffer/perimeter treatment per sheet 6, but the sheet 6 perimeter treatment is not proffered and appears to provide no additional landscaping, buffering or screening with respect to adjoining residential areas.
4. **Section 6-1310(P)** - *Whether the proposed special exception use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.* See comments A.3., B.1., and B.2. above.

Conformance with Section 6-1310—Office uses in PD-IP

5. **Section 6-1310(A)** - *Whether the proposed special exception is consistent with the Comprehensive Plan.* Staff reiterates that substantial office development is not consistent with transition land use policies. (Prior comment B.19.)

Conformance with Section 6-1310—Floor Area Ratio up to .60 in PD-IP

6. **Section 6-1310(A)** - *Whether the proposed special exception is consistent with the Comprehensive Plan.* Staff maintains the proposed rezoning to the PD-IP district is not consistent with the Comprehensive Plan. Hence, special exception approval for increased floor area in the district is also inconsistent with Plan policies. The applicant has not demonstrated the need for or appropriateness of an increase in floor area above .40. (Prior comment B.21.)
7. **Section 6-1310(E)** - *Whether the proposed use is compatible with other existing or proposed uses in the neighborhood, and adjacent parcels.* Increasing the permitted floor area ratio intensifies development in the PD-IP district and results in greater impacts to the adjacent residential properties zoned TR-10. (Prior comment B.22.)
8. **Section 4-1400, AI-Airport Impact Overlay District.** Revise note 12 (existing conditions map) on sheet 2 to indicate that a small portion of parcel 60/41 is within the LDN-60 contour, not that the whole property is within the LDN-60 contour. (Prior comment B.34.)
9. **Section 5-600, Additional Regulations.** Certain uses are subject to the additional regulations of this section. Utility substations are subject to Section 5-616. The development plan shall specify these performance standards per Section 6-1508(A). Please add this information to sheet 2. On sheets 4 and 5, demonstrate the required type 4 buffer for the utility substation, transmission.
10. **Section 4-1800, QN - Quarry Notification Overlay District.** Revise all sheets to reflect the expanded quarry overlay district as a result of the approval of SPEX 2009-0027.
11. **Section 5-900, Access and Setbacks.** South of the Dulles Greenway on parcel 60/39, a 75-foot setback should be shown, not 35 feet. Additionally, the setback shall be measured from the ultimate planned right-of-way. The setback from Sycolin Road in this area does not appear to account for the ultimate 90-foot right-of way and should be revised.
12. **Section 5-1508, Steep Slope Standards.** Development on moderately steep slope areas shall meet the performance standards in Section 5-1508(F).

C. SECTION 6-1504, MODIFICATIONS

A modification of the zoning ordinance shall be granted only when such modification is found to achieve an innovative design, improve upon the existing regulation, or otherwise exceed the public purpose of the existing regulation. Zoning staff offers the following evaluation of the proposed modifications:

1. Section 4-502. PD-IP districts shall be mapped in locations designated by the Comprehensive Plan for industrial use. The modification would allow remapping in a location not designated for industrial use.

Staff Comment: The Revised General Plan does not designate this area for industrial use. Zoning staff defers to Community Planning for further comment regarding consistency with the Revised General Plan.

2. Section 4-506(B). Building height in the PD-IP district is 45 feet maximum, provided that a building may be erected to a maximum height of 100 feet if it is set back from streets or from lot lines that do not constitute boundaries of districts with lower maximum height restrictions, in addition to each of the required minimum yard dimensions, a distance of not less than one (1) foot for each one (1) foot of height that it exceeds the 45-foot limit. The modification proposes to allow for building height maximums up to 100 feet, without the need for the additional 1:1 setback.

Staff Comment: The justification indicates that the modification is proposed generally adjacent to the Dulles Greenway and other nonresidential uses. To that end, staff suggests the land bay in the northwest area of the site be reduced to the 45-foot height maximum since this area is adjacent to the TR-10 zone. Staff also notes that the 50-foot perimeter buffer is not proposed adjacent to the Dulles Greenway or nonresidential area, so there will not be additional vegetation to mitigate the visual impact of the taller buildings. Staff suggests the 50-foot perimeter buffer be installed in all locations with increased building heights.

3. Section 4-507(C). Landscaping, buffering, and screening shall be used to screen outdoor storage, areas for collection of refuse, loading area, and parking from streets and agricultural and residential uses. The modification proposes that this section apply only from public streets.

Staff Comment: Staff reiterates that no specific buffer types or enhancements to such buffers have been detailed by the applicant. As the level of landscaping, buffering, and screening is not clear, staff does not support this modification.

4. Section 4-507(J). Allow parking of larger vehicles that exceed two axles that are required for data center operations or as an accessory to the primary use.

Staff Comment: Staff reiterates that this modification is not permitted in the PD-IP district.

Article 8 defines a "business vehicle" as "a vehicle associated with a business. Business vehicles shall not exceed a rated capacity of one and one half (1.5) tons, and shall not have more than two axles." If a vehicle is not a "business vehicle," it is separately defined as "heavy equipment,": "Bulldozers, dumptrucks and similar pieces of large equipment and their accessories. The term includes *any vehicle associated with a business not included in the definition of business vehicle*. A trailer used for transporting heavy equipment is considered accessory to the equipment." [Emphasis added] These definitions are not modifiable.

Therefore, in the PD-IP district, the on-site parking of business vehicles may not include those larger than two axles, as the applicant has requested. Further, heavy equipment uses are not listed as permitted or special exception uses in the PD-IP district.

Finally, the justification states that data center equipment may be provided on trailers that exceed two axles and these trailers are critical to the operations of the data center uses. Typically, data center equipment is enclosed within a building. It is unclear why data center equipment would be used/stored outside of the building and what function the referenced trailers would serve.

D. PROFFER STATEMENT

The following comments are provided for the draft proffer statement dated December 21, 2010:

1. In regard to the preamble, the individual parcel acreages and the total site area indicated are not consistent with the plan set (sheet 2). Please resolve all discrepancies regarding parcel acreages to be rezoned and total site area.
2. In regard to the preamble, line 4, it is not clear why a portion of parcel 61/13 is being rezoned (i.e. 53.44 acres of 53.54 acres). The plan set seems to indicate that the whole parcel is being rezoned. Please revise or explain.
3. In regard to proffer I.1., line 2, substantial conformance is indicated for sheet 6. However, on sheet 6, certain portions of the sheet are not proffered. Move non-proffered components to a new sheet.
4. In regard to proffer I.1., line 2, the plan set title is not consistent with the title on sheet 1. Further, the title in the proffer and on the plan set does not reflect all the applications that have been submitted. Please revise the title in the proffer and on the plan set accordingly.
5. In regard to proffer I.1., line 7, staff suggests the phrase "general development layout" be changed to "general layout" to be consistent with Section 6-1209(F).
6. In regard to proffer I.1., line 8, staff suggests deleting the fourth sentence beginning, "The applicant shall have reasonable flexibility...". Or, revise this sentence to be consistent with the wording used in Section 6-1209(F).
7. In regard to proffer I.1., no reference is made to the development of PD-IP permitted uses. Is the applicant proffering to only develop office uses? Please clarify. Further, in regard to the development of special exception uses, staff suggests the limitations of such be contained in conditions of approval, not the proffer statement.

8. In regard to proffer I.1. and the zoning modifications, the listed sections are not consistent with the zoning modification matrix on Sheet 2. It should be "Sections 4-502, 4-506(B), 4-507(C) & (J)."
9. In regard to proffer II.2., line 9, staff suggests the word "Director" be changed to "Department."
10. In regard to proffer II.3., line 2, staff suggests deleting the word "of."
11. In regard to proffer II., staff suggests dedication of right-of-way also be provided for Cochran Mill Road, which is planned to be a minor collector road with a 70-foot right-of-way.
12. In regard to proffer II.4., dedication is required "as shown on the Concept Plan." However, it is not clear from the Concept Plan what is to be dedicated and no dedication is proposed along Sycolin Road south of the Dulles Greenway. If 45-feet from centerline is to be dedicated across the entire property frontage, please state this. In addition, since the traffic study has not been provided, clearly state all improvements being proffered.
13. In regard to proffer II.4., the Countywide Transportation Plan notes that additional right-of-way may be needed for Sycolin Road for bicycle/pedestrian facilities. Staff suggests the proffer provide for such additional right-of-way.
14. In regard to proffer II.4., a period is needed at the end of the second paragraph.
15. In regard to proffer II.5.a. and b., the regional road contributions are offered only in relation to the square footage for office uses. Staff questions whether there is a contribution for by-right uses or other special exception uses.
16. In regard to proffer II.5.a. and b., both paragraphs state that the required contribution "shall be in addition to the one-time regional road contribution...". However, no such one-time regional road contribution has been proffered. Include a separate paragraph for this contribution.
17. In regard to proffer II.5.a. and b., the contribution "shall be used for the installation of traffic signals...". Since the contribution will be for regional road improvements, staff suggests this stipulation be removed. The County will determine how the funds are used.
18. In regard to proffer II.5.b., line 1, insert the word "foot" after the word "square."
19. In regard to proffer II.5.b., add the other special exception use requested with this application that will yield square footage (i.e. firearm range, indoor).
20. In regard to proffer II.5.a. and b., it is not clear why two different amounts are being offered.
21. In regard to proffer III.6., specify a trigger as to when the applicant shall demonstrate incorporation of low impact development design and BMP techniques.
22. In regard to proffer III.7., staff suggests a provision requiring delineation of the TSA on each construction plans and profiles application and site plan application, as well as demonstration of the minimum 80% canopy.
23. In regard to proffer III.8., the "Management Buffer" needs to be labeled on sheet 4, or otherwise shown in the legend. Because they are both purple, it is difficult to tell the Management Buffer from the SCVB. Staff suggests these be clearly labeled and depicted with different colors. Finally, on sheet 5, the Management Buffer is difficult to see against the topography lines. Revise accordingly.
24. In regard to proffer III.9., line 1, please change "Corp" to "Corps."

25. In regard to proffer III.9., line 3, please change "construction plan" to "construction plans and profiles."
26. In regard to proffer III.9., line 3, please insert the phrase ", whichever is first in time," after the word "approval."
27. In regard to proffer III.12., other than location, the provisions of this proffer are not enforceable.
28. In regard to proffer III.12., the phrase "and the location behind buildings" does not make sense. Please clarify.
29. In regard to proffer III.13., please change "At the time of" to "Prior to."
30. In regard to proffer III.15., 1st paragraph, line 1, please change "the" to "all."
31. In regard to proffer III.15., 2nd paragraph, line 6, staff suggests the phrase "or by County Staff" be deleted.
32. Delete proffer III.16.
33. In regard to proffer IV.19., 1st paragraph, line 1, staff suggests "ground disturbance" be changed to "land disturbing activities."
34. In regard to proffer IV.19., 1st paragraph, line 1, please change the word "near" to a more definite figure.
35. In regard to proffer IV.19., 1st paragraph, line 3, please change "construction" to "any land disturbing activities."
36. In regard to proffer IV.19., 2nd paragraph, last line, delete the quotation marks and insert a period.
37. In regard to proffer IV.20., line 1, staff suggests the phrase "one-time cash" be inserted prior to contribution.
38. In regard to proffer IV.20., staff suggests the second sentence be replaced with the following sentence: "This contribution shall be designated for the development of a trail connection between the trail system planned within the Philip A. Bolen Memorial Park and the W&OD Regional Park Trail."
39. In regard to proffer VI.22., in the last line, change "2010" to "2011."

E. PLAT NOTES/MISCELLANEOUS


1. In the statement of justification received January 26, 2011, change "CMPT 2010-0034" to "CMPT 2010-0014."
2. In the title on sheet 1 and title block on all sheets, list all applications. SPEX 2010-0034 is missing.
3. On sheet 1, review the address for Sycolin Corner, LLC. It is not consistent with County Records. (Prior comment D.1.)
4. In the List of Drawings on sheet 1, the titles listed for sheets 1, 4 and 5 are not consistent with the title blocks on those sheets. Revise accordingly.
5. In the list of Reference Plans on sheet 1, update the status of application numbers 1, 2, 3, and 5. Additionally, it is noted that SPEX 2009-0027 is not listed, which was approved in conjunction with ZMAP 2009-0003/ZMAP 2009-0004.
6. In the vicinity map on sheet 1, the rezoning plat on sheet 2, and sheets 4 and 5, update the surrounding zoning.

7. In regard to sheet 2 and as noted in the proffer comments above, the acreages (overall and individual parcel) in the notes, tables, and plat on sheet 2 are not consistent with the statement of justification or the proffer. Remove all discrepancies regarding the stated acreages and revise the calculations if necessary.
8. Under Concept Plan notes on sheet 2, delete note 1. The zoning tabulations table does not provide the type, location and nature of land use or building type information.
9. Under Concept Plan notes on sheet 2, in note 4, correct the title of the reference sheet so that it matches sheet 5.
10. Under Concept Plan notes on sheet 2, in note 8.B., remove the reference to structures. Change "vicinity plan" to "vicinity map."
11. Under Concept Plan notes on sheet 2, delete note 11.
12. Under the Information Tabulation Notes on sheet 2, delete note 4. Or, change the phrase "all minimum requirements" to "lot and building requirements." (Prior comment D.2.)
13. Under the open space map on sheet 2, the note references "net land area." However, there is no indication as to what is excluded to reach the net land area. Revise this note to reference "buildable area" to be consistent with the Zoning Ordinance.
14. In the zoning modification matrix, change "4-506" to "4-506(B)."
15. On sheets 3 through 6, remove notes and labels referring to ZMAP 2009-0004 as pending.
16. Reference should be made to the indoor firearm range on the special exception plat (sheet 4). (Prior comment D.7.)
17. On sheets 4 and 5, the potential water storage tank/water treatment plant is not within an area designated for potential building. Please create building/parking envelopes for these potential locations.
18. In regard to note 8 on sheet 4, the applicant will be subject to the buffer yard requirements of Section 5-1400. Amend this note to state compliance with Section 5-1400. Additionally, a type 3 buffer is required where the property fronts an existing or planned four-lane divided roadway.
19. A number of the labels on sheet 5 are difficult to read because of the multiple overlays. Ensure that all text can be easily read.

County of Loudoun
Office of Transportation Services
MEMORANDUM

DATE: January 27, 2011

TO: Judi Birkitt, Project Manager,
Department of Planning

FROM: George Phillips, Senior Transportation Planner 

SUBJECT: ZMAP 2008-0017 - Stonewall Secure Business Park
SPEX 2008-0068 - Stonewall Secure Business Park - Office @ 0.60 FAR
SPEX 2008-0069 - Stonewall Secure Business Park - Water Storage Tank
SPEX 2008-0070 - Stonewall Secure Business Park - Water Treatment Plant
SPEX 2010-0018 - Stonewall Secure Business Park - Indoor Firearm Range
SPEX 2010-0034 - Stonewall Secure Business Park - Utility Substation
CMPT 2010-0014 - Stonewall Secure Business Park - Utility Substation
Third Referral

Background

This referral updates the status of issues identified in the second Office of Transportation Services (OTS) referral comments, dated September 28, 2010. These applications seek approval to rezone 193 acres from TR-10 and PD-IP for the development of a secure business park along with four special exceptions to allow office uses up to a .60 FAR, a water storage tank, a water treatment plant and an indoor firearm range. A proposed utility substation for transmission was added to the application subsequent to the OTS second referral. A total of 4.9 million square feet of non-residential development is proposed on this site. This amount reflects the removal of the now approved Hybrid Energy Park applications. The site is located east of Sycolin Road (Route 643) and primarily north of the Dulles Greenway (Route 267). Access is proposed via site entrances from Sycolin Road (Route 643) and Gant Lane (Route 652). A vicinity map and proposed site layout graphic are provided as *Attachment 1*.

This review is based on materials received from the Department of Planning on December 27, 2010 including (1) a response letter from the Applicant's representative dated December 20, 2010; (2) a revised statement of justification dated December 20, 2010; (3) a revised concept plan, dated December 15, 2010, from William H. Gordon Associates, Inc.; (4) a traffic study dated December, 2010 from Kittelson & Associates, Inc.; and (5) a draft proffer statement dated December 21, 2010.

Review of Applicant's Traffic Study

The Applicant has submitted a new traffic study (dated December 2010) for the proposed applications. The study documents existing (2010) traffic volumes and Level of Service (LOS), forecast year 2013 background (i.e. without this development) traffic conditions, forecast year 2013 total traffic (existing + approved + Phase 1) conditions, forecast year 2015 background traffic (existing + approved + Phase 1) conditions, forecast year 2015 total traffic (existing + approved + Phase 1 + Phase 2) conditions and, forecast year 2020 background and total traffic conditions with full site build out. Design year 2030 total traffic conditions are also documented in the study. For year 2020 and future conditions, the study includes scenarios both with and without Crosstrail Boulevard in place between the Dulles Greenway and Russell Branch Parkway. The traffic study assumes the development of 5,000,000 total square feet of non-residential uses on the site in three phases as follows: Phase 1 (2013) totals 900,000 square feet of Data Center uses and 100,000 square feet of Office uses; Phase 2 (2015) totals 1,800,000 square feet of Data Center and 200,000 square feet of Office uses; and Phase 3 2020 totals 4,500,000 square feet of Data Center and 500,000 square feet of Office uses.

Existing (2010) Traffic Volumes and Level of Service (LOS)

The existing roadway network (existing lane use and traffic control) is illustrated on Figure 4 in *Attachment 2*. Existing traffic volumes and intersection LOS are shown on Figures 5, 6, 7 and 8 in *Attachments 3, 4, 5 and 6*. Table 2 (*Attachment 7*) summarizes the peak hour LOS for each study intersection. Table 2 indicates that several intersections are currently operating below LOS D in one or both peak hours, as noted below:

- The Route 15/Masons Lane intersection (#1) operates at LOS E overall during both peak hours.
- The Masons Lane/Evergreen Mills Road (#2) intersection operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road (#5) intersection operate at LOS F overall during both peak hours.
- The Hope Parkway/Sycolin Road (#6) intersection eastbound approach operates at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) westbound approach operates at LOS E during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) eastbound approach operates at LOS F during the PM peak hour.
- The Sycolin Road/ Loudoun Center Place intersection (#12) westbound approach operates at LOS F during the PM peak hour.
- The Dulles Greenway westbound On-ramp/Belmont Ridge Road intersection (#21) eastbound approach operates at LOS E during the PM peak hour.

Forecast Year 2013 Background (Without Development) Traffic Conditions

The 2013 forecasted background peak hour traffic volumes, assumed lane use and forecasted intersection LOS are illustrated in Figures 9, 10, 11 and 12 in *Attachments 8, 9, 10 and 11*). Table 3 (*Attachment 12*) summarizes the peak hour LOS for each study intersection. Table 3 indicates that several intersections are forecast to operate below LOS D in one or both peak hours as noted below:

- The Masons Lane/Evergreen Mills Road (#2) intersection is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) includes LOS F during both peak hours for the northbound and southbound approaches and LOS E for the westbound approach during the PM peak hour.
- The Sycolin Road/Tavistock Drive (#10) intersection includes LOS F during both peak hours for the westbound approach.
- The Sycolin Road /Miller Drive intersection (#11) includes LOS F for the eastbound and northbound approaches during the PM peak hour.
- The Sycolin Road/Loudoun Center Place intersection (#12) includes LOS F for the westbound approach during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#18) includes LOS E for the westbound approach during the PM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) is forecast to operate at LOS E for the westbound approach during the PM peak hour.

Trip Generation

Table 4 in the Applicant's traffic study (*Attachment 13*) indicates that Phase 1 of the proposed development (2013) would generate 390 AM peak hour, 425 PM peak hour, and 2,610 daily weekday vehicle trips. Table 7 in the Applicant's traffic study (*Attachment 14*) indicates that Phase 2 of the proposed development would generate an additional 655 AM peak hour, 690 PM peak hour, and 4,330 daily weekday vehicle trips for a total of 1,045 AM peak hour, 1,115 PM peak hour and 6,940 daily vehicle trips. Table 13 in the Applicant's traffic study (*Attachment 15*) indicates that the proposed development would generate a cumulative total of 1,670 AM peak hour, 1,810 PM peak hour, and 10,995 daily weekday vehicle trips at build out in 2020. This information is based on rates and equations from the *Trip Generation Manual, 8th Edition, Institute of Transportation Engineers (ITE)* and specific trip generation data for Data Centers summarized by Wells & Associates.

Trip Distribution

Figure 13 in the Applicant's traffic study (*Attachment 16*) estimates trip distribution information for all phases based on existing travel patterns and origin/destination patterns. The site traffic is distributed with 43% of the traffic approaching from the north and west, 3% approaching from the southwest and 42% approaching from the east and southeast, and 15% approaching from the northeast.

Forecast (Year 2013) Total Traffic Conditions With Phase 1 Development

Phase 1 site-generated trip assignments and the 2013 forecasted total with development peak hour traffic volumes, assumed lane use and traffic control and forecasted intersection LOS are illustrated in Figures 14,15,16,17,18 and 19 in *Attachments 17,18,19,20,21 and 22*. Table 5 (*Attachment 23*) summarizes the peak hour LOS for each study intersection. Table 5 indicates that several intersections are forecast to operate below LOS D during one or both peak hours as noted below:

- Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) includes LOS F during both peak hours for the northbound and southbound approaches and LOS E for the westbound approach during the PM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) westbound approach is forecast to operate at LOS F during both peak hours. The eastbound approach is forecast to operate at LOS E during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) includes LOS F for the eastbound approach during the PM peak hour.
- The Sycolin Road/Loudoun Center Place intersection (#12) include LOS F for the westbound approach during the PM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2015) Background Traffic Conditions (With Phase 1 Development)

The 2015 forecasted background (including Phase 1 development) peak hour traffic volumes, assumed lane use and traffic controls, and forecasted intersection LOS are illustrated in Figures 20,21,22 and 23 in *Attachments 24,25,26 and 27*. Table 6 (*Attachment 28*) summarizes the peak hour LOS for each study intersection. Table 6 indicates that several intersections are forecast to operate below LOS D during one or both peak hours as noted below:

- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.

- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) includes LOS F during both peak hours for the northbound and southbound approaches. The westbound approach is forecast to operate at LOS E during the PM peak hour. The eastbound approach is forecast to operate at LOS E during the AM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) includes LOS F during both peak hours for the westbound approach and LOS E for the eastbound approach during the AM peak hour and LOS F during the PM peak hour.
- The Sycolin Road/Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS F during the PM peak hour.
- The Sycolin Road/Loudoun Center Place (#12) intersection westbound approach is forecast to operate at LOS F during the PM peak hour.
- The Sycolin Road/Shreve Mill Road intersection (#18) eastbound approach is forecast to operate at LOS E during the PM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2015) Total Traffic Conditions With Phase 2 Development

Phase 2 site-generated trip assignments and the 2015 forecasted total Phase 2 development peak hour traffic volumes, assumed lane use and traffic controls and forecasted intersection LOS are illustrated in Figures 24,25,26,27,28 and 29 in *Attachments 29,30,31,32,33 and 34*. Table 8 (*Attachment 35*) summarizes the peak hour LOS for each study intersection. Table 8 indicates that several intersections are forecast to operate below LOS D all during one or both peak hours, as noted below:

- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F during both peak hours for the northbound and southbound approaches and LOS E on the westbound approach during the AM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) is forecast to operate at LOS F during both peak hours on the eastbound and westbound approaches.
- The Sycolin Road/Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Sycolin Road/Loudoun Center Place (#12) intersection westbound approach is forecast to operate at LOS F during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#13) westbound approach is forecast to operate at LOS E during the PM peak hour.
- The Sycolin Road/Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS E during the AM peak hour.

- The Shreve Mill/Sycolin Road intersection (#18) eastbound approach is forecast to operate at LOS F during both peak hours.
- The Gulick Mill Road/Sycolin Road intersection (#19) eastbound approach is forecast to operate at LOS E during the PM peak hour.
- The Sycolin Road/Belmont Ridge Road intersection (#20) westbound and southbound approaches is forecast to operate at LOS E during the PM peak hour. The northbound approach is forecast to operate at LOS E during the AM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2020) Background Traffic Conditions (Without Crosstrail Boulevard)

The 2020 forecasted background (including Phase 1 and Phase 2 development) peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS without Crosstrail Boulevard in place are illustrated in Figures 30,31,32 and 33 in *Attachments 36,37,38 and 39*. Table 9 (*Attachment 40*) summarizes the peak hour LOS for each study intersection. Table 9 indicates that several intersections are forecast to operate below LOS D overall during one or both peak hours, as noted below:

- The Masons Lane/Route 15 intersection (#1) northbound approach is forecast to operate at LOS E during the AM peak hour.
- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Tavistock Drive intersection (#10) eastbound and westbound approaches are forecast to operate at LOS F during both peak hours.
- The Sycolin Road/ Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road /Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS F during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road /Shreve Mill intersection (#13) eastbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS F during the AM peak hour and LOS E during the PM peak hour.
- The Gulick Mill Road/Sycolin Road intersection (#19) eastbound approach is forecast to operate at LOS E during the PM peak hour.
- The Sycolin Road /Belmont Ridge Road intersection (#20) westbound and southbound approaches are forecast to operate at LOS E during both peak hours. The eastbound approach

is forecast to operate at LOS F during the AM peak hour and LOS E during the PM peak hour.

- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.

Forecast (Year 2020) Traffic Conditions At Site Buildout (Without Crosstrail Boulevard)

Phase 3 site-generated trip assignments and the 2020 forecasted total with full site build out peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS are illustrated in Figures 34,35,36, 37,38, and 39 in *Attachments 41,42,43,44,45 and 46*. Table 11 (*Attachment 47*) summarizes the peak hour LOS for each study intersection. Table 11 indicates that several intersections are forecast to operate below LOS D during one or both peak hours as noted below:

- The Masons Lane/Route 15 intersection (#1) northbound approach is forecast to operate at LOS E during the AM peak hour.
- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection is forecast operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Tavistock Drive intersection (#10) eastbound and westbound approaches is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road /Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#13) westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/ Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Shreve Mill intersection (#18) is forecast to operate at LOS E overall during both peak hours.
- The Gulick Mill Road/Sycolin Road intersection (#19) eastbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Sycolin Road /Belmont Ridge Road intersection (#20) westbound approach is forecast to operate at LOS E during both peak hours. The eastbound approach is forecast to operate at LOS F during the PM peak hour. The northbound and southbound approaches are forecast to operate at LOS E during the PM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during both peak hours.

- The Greenway Eastbound Off ramp/Belmont Ridge Road intersection (#22) eastbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2020) Background Traffic Conditions (With Crosstrail Boulevard)

The 2020 forecasted background (including Phase 1 and Phase 2 development) peak hour traffic volumes, assumed lane use and traffic controls, and forecasted intersection LOS with Crosstrail Boulevard in place between the Dulles Greenway and Russell Branch Parkway are illustrated in Figures 40,41,42 and 43 in *Attachments 48,49,50 and 51*. Table 12 (*Attachment 52*) summarizes the peak hour LOS for each study intersection. Table 12 indicates that several intersections are forecast to operate below LOS D overall during one or both peak hours, as noted below:

- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Tavistock Drive intersection (#10) is forecast to operate at LOS E during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#13) westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS F during the AM peak hour.
- The Sycolin Road/Shreve Mill intersection (#18) eastbound approach is forecast to operate at LOS E during both peak hours.
- The Sycolin Road /Belmont Ridge Road intersection (#20) westbound and southbound approaches are forecast to operate at LOS E during both peak hours. The eastbound approach is forecast to operate at LOS F during the AM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.

Forecast (Year 2020) Traffic Conditions at Site Buildout (With Crosstrail Boulevard)

Phase 3 site-generated trip assignments and the 2020 forecasted total with full site build out peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS with Crosstrail Boulevard in place between the Dulles Greenway and Russell Branch Parkway are illustrated in Figures 44,45,46,47,48 and 49 in *Attachments 53,54,55,56,57 and 58*. Table 14 (*Attachment 59*) summarizes the peak hour LOS for each study intersection. Table 14 indicates

that several intersections are forecast to operate below LOS D during one or both peak hours, as noted below:

- The Masons Lane/Route 15 intersection (#1) northbound approach is forecast to operate at LOS E during the AM peak hour.
- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Tavistock Drive intersection (#10) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS F during both peak hours.
- The Shreve Mill Road/Evergreen Mills Road (#13) westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Cochran Mill Road intersection (#17) is forecast to operate at LOS E overall during both peak hours.
- The Sycolin Road/Shreve Mill intersection (#18) is forecast to operate at LOS E overall during both peak hours.
- The Sycolin Road /Gulick Mill Road intersection (#19) eastbound approach is forecast to operate at LOS F during the PM peak hour.
- The Sycolin Road /Belmont Ridge Road intersection (#20) is forecast to operate at LOS F overall during both peak hours.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Site Driveway intersection (#26) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast Horizon Year (2030) Total Traffic Conditions (With Crosstrail Boulevard)

The 2030 forecasted total peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS are illustrated in Figures 50,51,52 and 53 in *Attachments 60,61,62 and 63*. Table 15 (*Attachment 64*) summarizes the peak hour LOS for each study intersection. Table 15 indicates that several intersections are forecast to operate below LOS D overall during one or both peak hours, as noted below:

- The Masons Lane/Route 15 intersection (#1) is forecast to operate at LOS F overall during both peak hours.
- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.

- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
- The Shreve Mill Road/Evergreen Mills Road intersection (#13) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Belmont Ridge Road intersection (#20) is forecast to operate at LOS F overall during both peak hours.
- The Battlefield Parkway/Sycolin Road intersection is forecast to operate at LOS E overall during both peak hours.
- Greenway Westbound On-Ramp/Belmont Ridge Road intersection (#21) is forecast to operate at LOS E overall during both peak hours.
- Greenway Eastbound Off-ramp/Belmont Ridge Road intersection (#22) is forecast to operate at LOS E overall during both peak hours.
- The Sycolin Road/Tavistock Drive intersection (#10) eastbound approach is forecast to operate at LOS F during the PM peak hour.
- The Sycolin Road/ Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS E during the PM peak hour.
- The Sycolin Road /Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS E during the PM peak hour.

Status of Transportation Comments

Staff comments from the second OTS referral (September 28,2010) as well as the Applicant's response, and current issue status are provided below.

Overall Staff Comment (Second Referral September 28, 2010): The Applicant has not responded to the issues previously raised in the original (April 17, 2009) OTS referral. These responses, as well as the provision of a revised traffic study, will be necessary for further OTS review. Based on the information submitted, OTS comments in this referral are limited to review of the Applicant's concept plan and special exception plat.

Applicant Response (December 20, 2010): *The comments in this referral are addressed or will be addressed by the enclosed Transportation Impact Analysis dated December, 2010, and prepared by Kittelson & Associates.*

Current Issue Status : The overall issue of the provision of a traffic study has been resolved. The current status of individual comments contained in the second OTS referral (September 28, 2010) are noted below.

1. Initial Staff Comment (Second Referral September 28, 2010): In the Applicant's response letter, it is noted that a revised traffic study will be submitted for the proposed PD-IP zoning district and proposed special exception uses. OTS looks forward to receiving this information so that a more detailed review can be made. OTS notes that the scope of this revised study was agreed to with the Applicant's traffic consultant in

May, 2010.

Applicant Response (December 20, 2010): The comments in this referral are addressed or will be addressed by the enclosed Transportation Impact Analysis dated December, 2010, and prepared by Kittelson & Associates.

Current Issue Status: The issue of the provision of a traffic study has been resolved.

2. Initial Staff Comment (Second Referral September 28, 2010): The proposed concept plan does not incorporate the planned realignment of Cochran Mill Road (Route 653) through the site to Sycolin Road (Route 643). A review of the 2010 CTP shows that the planned realignment will traverse this site (*Attachment 2*). It is recommended that the applicant agree to accommodate this alignment (70-foot right-of-way (ROW)) in conformance with the 2010 CTP.

Current Issue Status: The planned realignment of Cochran Mill Road per the 2010 CTP is not shown on the current plan. Issue not resolved.

3. Initial Staff Comment (Second Referral September 28, 2010): The 2010 CTP calls for Sycolin Road (Route 643) to be improved to a four-lane divided (U4M) section. The proposed entrance onto Sycolin Road (Route 643) needs to be constructed to VDOT standards/requirements including locating the proposed entrance relative to future median breaks, the provision of turn lanes and the demonstration of adequate sight distance. The new traffic study needs to account for the proposed security gate which will hinder the free flow of incoming site traffic from Sycolin Road (Route 643) at the proposed entrance. This may require additional measures to address the delay with enhanced facilities such as longer length turn lanes.

Current Issue Status: The Applicant notes in the draft proffers that the entrance on Sycolin Road will be in conformance with VDOT minimum standards. However, OTS understands that the location of the proposed site entrance may conflict with an existing archaeological site (#44LD1195) and may need to be relocated. Further discussion with County and VDOT staff is recommended. Also, the traffic study does not appear to account for the proposed security gate which will hinder free flow of incoming site traffic from Sycolin Road (Route 643) at the proposed entrance. It is not clear what additional facilities may be needed to address this issue. Further clarification is needed from the Applicant.

4. Initial Staff Comment (Second Referral September 28, 2010): The 2010 CTP depicts a future grade-separated interchange on the Dulles Greenway at the westernmost crossing of Sycolin Road (Route 643) south of the proposed site entrance location (see *Attachment 2*). The Applicant should coordinate with TRIP II (owners of the Dulles Greenway) regarding this yet-to-be-designed interchange and acknowledge that ROW may be needed in the future.

Current Issue Status: Not addressed. Issue not resolved.

5. Initial Staff Comment (Second Referral September 28, 2010): The Applicant proposes a private access to Gant Lane (Route 652) at the north east portion of the site. Gant Lane is a narrow, unpaved road in the vicinity of the site that includes a concrete culvert over the Sycolin Creek with no guard rails. In order to access this facility with site traffic, it is recommended that the Applicant commit to construction of an improved section of Gant Lane (Route 652) south from Cochran Mill Road (Route 653) to the proposed entrance. This improvement should be a paved, two-lane rural section (consistent with VDOT standards) and needs to include an improved bridge crossing over Sycolin Creek. As an alternative, the Applicant can also explore obtaining access to the new private road crossing (*Attachment 3*) of Sycolin Creek proposed as part of the pending Luck Stone and Loudoun Water Treatment Plant applications.

Current Issue Status: Not addressed. Issue not resolved. OTS notes that the Gant Lane access is identified in the traffic study as being for emergency access only, but no notes to that effect are listed on the plat. Clarification as to the function of this entrance is necessary.

6. Initial Staff Comment (Second Referral September 28, 2010): The proposed 25-foot travel way on-site traverses the proposed to access road to the Hybrid Energy Park as well as the Virginia Dominion Power electric and Columbia Gas easements. The Applicant needs to coordinate with each of these entities to gain permission of access and to ensure there are no conflicts with existing or planned uses.

Current Issue Status: Clarification is needed. Issue not resolved.

New Transportation Comments

The following additional comments are based on review of new materials (including the December, 2010 traffic study).

7. The traffic study sets forth a series of transportation related improvements which are needed to address road network deficiencies cited in the study.

Under existing (2010) conditions, these deficiencies include:


- The need for traffic signals at the Route 15/Masons Lane, Sycolin Road/Hope Parkway, Sycolin Road/Tavistock Drive, Sycolin Road/Miller Drive, Sycolin Road/Loudoun Center Place and Dulles Greenway westbound ramp/Belmont Ridge Road intersections.
- Dual left-turn lanes on westbound Battlefield Parkway and modified signal timings at the Battlefield Parkway/Evergreen Mill Road intersection.

- An interchange at the Sycolin Road/Leesburg Bypass intersection. (OTS Staff notes that this improvement is not in the 2010 CTP.)

Under 2015 Background (no site development) conditions, the following improvements are needed :

- A traffic signal is needed at the Sycolin Road/Shreve Mill Road intersection.

Under 2015 total traffic conditions assuming the full build out of Phase 2, the following improvements are needed:

- 
- Traffic signals the Shreve Mill Road/Evergreen Mill Road, Sycolin Road/Cochran Mill Road and Sycolin Road/Gulick Mill Road intersections.
 - Under 2020 background traffic (no development) traffic conditions, dual northbound left-turn lanes are needed at the Sycolin Road/Belmont Ridge Road intersection.

300,000 each

Under 2020 traffic conditions with full site build out the following improvements are needed:

- Dual westbound left-turn lanes out of the site are needed at the proposed site driveway.
- Sycolin Road will need to be widened to four lanes north of the site.
- Two southbound travel lanes extending south past the site-access driveway on Sycolin Road for some distance to accommodate the dual left-turns.

Based on the site impacts to the surrounding road network, OTS recommends that the Applicant provide the following improvements:

- The widening of Sycolin Road from the current four-lane widening project (near the Leesburg Airport) to the westernmost Sycolin Road bridge over the Dulles Greenway. Coordination regarding the relocation of a segment of Sycolin Road to accommodate the proposed runway extension at Leesburg Airport is necessary. This will also require off-site right-of-way acquisition.
- Sycolin Road Entrance improvements which meet VDOT standards including signalization and turn lanes.
- Construction of site entrance striping and widening to accommodate two inbound and three outbound lanes.
- The provision of traffic signals to study intersections where warranted. Due to the planned realignment of both Shreve Mill Road and Cochran Mill Road, the installation of traffic signals at these existing intersection locations along Sycolin Road may not be desirable.

Phasing of these recommended improvements requires further discussion.

8. In order to address the lower percentage, less direct impacts of site traffic on the regional road network, a per square foot regional road contribution is recommended for area improvements. Further review and discussion is needed to determine a specific contribution amount. The Applicant has provided draft proffer language or a regional road contributions. However, the specific dollar amounts are not specified and will need to be determined. In addition the Applicant has proposed restrictions that the contributions are to be used for the installation of traffic signals as specifically described in the traffic study. OTS does not support the proposed restriction at this time. There are a variety of planned transportation improvements (e.g., Crosstrail Boulevard, the Sycolin Road/Leesburg Bypass intersection location, etc.) to which these funds could also be applied. OTS recommends that the final proffer language provide for more flexibility. Further discussion is recommended.
9. In order to ensure that the traffic impacts set forth in the traffic study reflect the proposed development, proffers and/or conditions regarding use restrictions on the the proposed development are necessary such that data center uses will not exceed 4.5 million square feet and office uses will not exceed 500,000 square feet.
10. Clarification is needed regarding the amount of other (proposed Special Exception) uses including the utility substation and indoor firearm range. These uses are not referenced in the Applicant's traffic study.
11. The Applicant needs to address the access constraints at the southeast end of Sycolin Road in the vicinity of the Sycolin Road/Belmont Ridge Road intersection. The Applicant's traffic study forecasts between 8,000 and 9,000 vehicles per day on Sycolin Road east of the subject site by 2020. The Sycolin Road/Belmont Ridge Road intersection is shown to include failing LOS at build out (year 2020). In addition, the planned capacity of Sycolin Road will be restricted by the recently constructed road section and parallel parking in the Goose Creek Village retail/commercial development immediately west of the Sycolin Road/Belmont Ridge Road intersection. In order to relieve projected traffic in this area, it is recommended that the Applicant pursue the construction of Crosstrail Boulevard between Sycolin Road and the Dulles Greenway which would provide an additional means of access to the site from the Dulles Greenway.
12. In keeping with Appendix 6 of the 2010 CTP which sets forth recommendations for bicycle and pedestrian facilities along planned CTP roads, a 10 foot wide shared use path over a 14-foot wide right-of-way or public access easement is recommended along the site frontage.

Conclusion

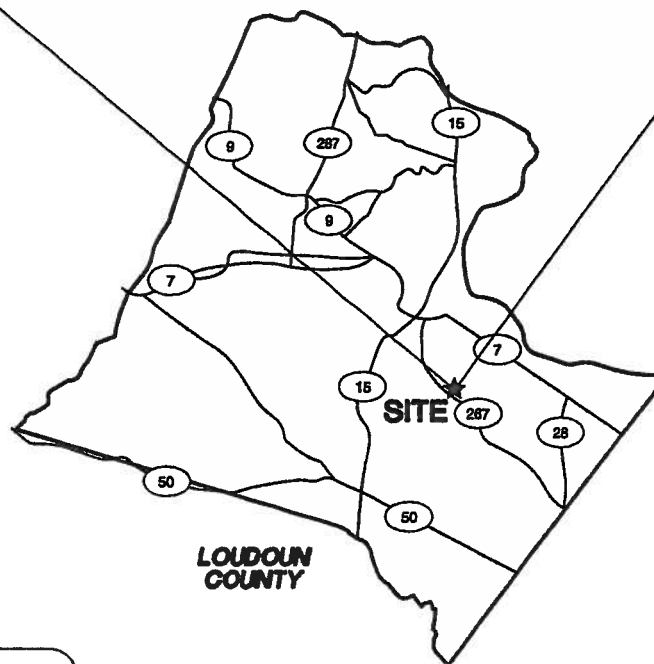
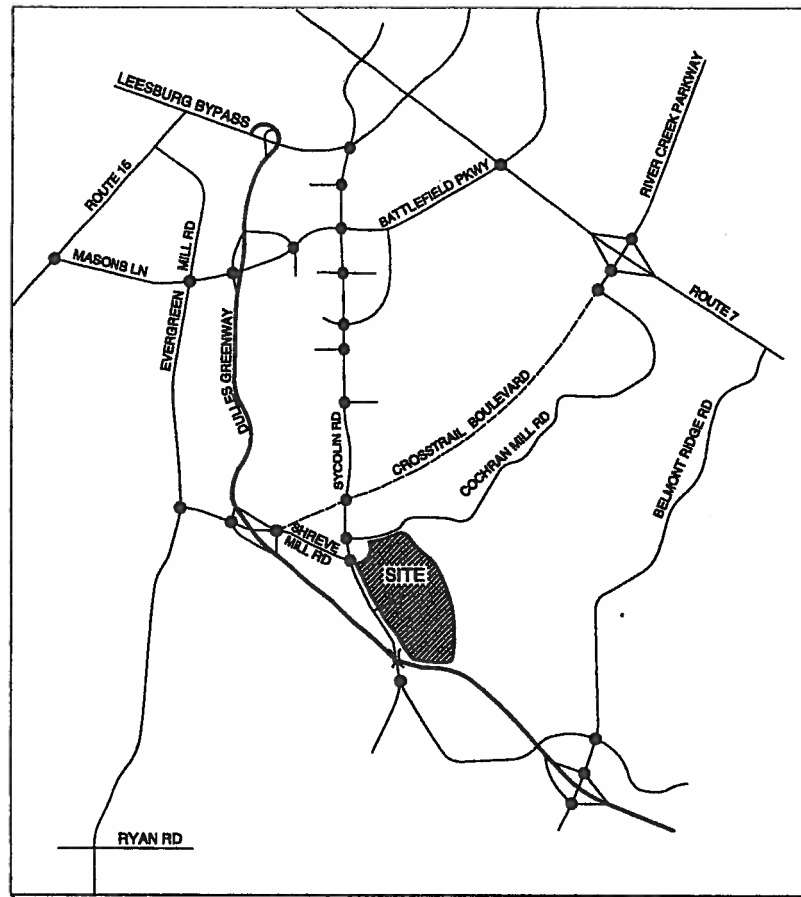
OTS has no recommendation at this time. The above issues, as well as those previously raised in the September 28, 2010 OTS referral, need to be adequately addressed. Depending on the Applicant's responses, OTS may have additional comments. OTS staff is available to meet to discuss the transportation issues associated with these applications.

ATTACHMENTS

1. Site Vicinity and Site Layout Maps
2. Existing Roadway Network (existing lane use and traffic control)
3. Existing Traffic Volumes and LOS
4. Existing Traffic Volumes and LOS
5. Existing Traffic Volumes and LOS
6. Existing Traffic Volumes and LOS
7. Existing Peak Hour LOS
8. Forecasted (2013) Background Peak Hour Traffic, Lane Use and LOS
9. Forecasted (2013) Background Peak Hour Traffic, Lane Use and LOS
10. Forecasted (2013) Background Peak Hour Traffic, Lane Use and LOS
11. Forecasted (2013) Background Peak Hour Traffic, Lane Use and LOS
12. Peak Hour LOS (2013) Background
13. Phase 1 Trip Generation
14. Phase 2 Trip Generation
15. Buildout Trip Generation
16. Site Trip Distribution
17. Forecasted (2013) Total Peak Hour Traffic, Lane Use and LOS
18. Forecasted (2013) Total Peak Hour Traffic, Lane Use and LOS
19. Forecasted (2013) Total Peak Hour Traffic, Lane Use and LOS
20. Forecasted (2013) Total Peak Hour Traffic, Lane Use and LOS
21. Forecasted (2013) Total Peak Hour Traffic, Lane Use and LOS
22. Forecasted (2013) Total Peak Hour Traffic, Lane Use and LOS
23. Peak Hour LOS (2013) Phase 1 Development
24. Forecasted (2015) Background Peak Hour Traffic, Lane Use and LOS
25. Forecasted (2015) Background Peak Hour Traffic, Lane Use and LOS
26. Forecasted (2015) Background Peak Hour Traffic, Lane Use and LOS
27. Forecasted (2015) Background Peak Hour Traffic, Lane Use and LOS
28. Peak Hour LOS (2015) Background
29. Forecasted (2015) Total Peak Hour Traffic, Lane Use and LOS
30. Forecasted (2015) Total Peak Hour Traffic, Lane Use and LOS
31. Forecasted (2015) Total Peak Hour Traffic, Lane Use and LOS
32. Forecasted (2015) Total Peak Hour Traffic, Lane Use and LOS
33. Forecasted (2015) Total Peak Hour Traffic, Lane Use and LOS

34. Forecasted (2015) Total Peak Hour Traffic, Lane Use and LOS
35. Peak Hour LOS (2015) Phase 2 Development
36. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS
37. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS
38. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS
39. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS
40. Peak Hour LOS (2020) Background
41. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (Without Crosstrail Blvd.
42. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (Without Crosstrail Blvd)
43. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (Without Crosstrail Blvd)
44. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (Without Crosstrail Blvd)
45. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (Without Crosstrail Blvd)
46. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (Without Crosstrail Blvd)
47. Peak Hour LOS (2020) Site Buildout (Without Crosstrail Blvd.)
48. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
49. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
50. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
51. Forecasted (2020) Background Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
52. Peak Hour LOS (2020) Background (With Crosstrail Blvd.)
53. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
54. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
55. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
56. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
57. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
58. Forecasted (2020) Total Peak Hour Traffic, Lane Use and LOS (With Crosstrail Blvd)
59. Peak Hour (2020) Site Buildout (With Crosstrail Blvd)
60. Forecasted Horizon Year (2030) Total Peak Hour Traffic, Lane Use and LOS
61. Forecasted Horizon Year (2030) Total Peak Hour Traffic, Lane Use and LOS
62. Forecasted Horizon Year (2030) Total Peak Hour Traffic, Lane Use and LOS
63. Forecasted Horizon Year (2030) Total Peak Hour Traffic, Lane Use and LOS
64. Peak Hour LOS (2030) Forecast Horizon Year (With Crosstrail Blvd)

cc: Andy Beacher, Director, OTS
Lou Mosurak, Senior Coordinator, OTS



LEGEND

- - STUDY INTERSECTIONS

**SITE VICINITY MAP
LOUDOUN COUNTY, VA**

FIGURE
1



PROPOSED SITE PLAN
LOUDOUN COUNTY, VA
FIGURE 2

Table 2 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Existing

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Masons Ln & Route 15	Unsignalized	WB	WBLR		C	43	22.3	F	314	151
		WB Approach			C		22.3	F		151
		NB	NBTR			0	0		0	0
		NB Approach					0			0
		SB	SBLT		A	8	2.9	A	5	1.6
		SB Approach					2.9			1.6
Masons Lane & Evergreen Mills Road	Signalized	Overall LOS			E		2.8	E		2.8
		EB	EBLTR		C	360	25.4	C	m125	23.7
		EB Approach			C		25.4	C		23.7
		WB	WBLT		F	#987	180.7	C	376	28.8
			WBR	100	A	22	8.5	B	144	15.3
		WB Approach			F		182.6	C		22.9
		NB	NBL	100	D	29	42	C	45	33.5
			NBT		E	378	61.2	F	#830	101.1
			NBR	100	E	291	56.8	E	#487	74.8
		NB Approach			E		58.2	F		88.1
		SB	SBL	100	D	167	38.5	D	128	40.7
			SBT		D	491	53.3	D	247	38.7
			SBR	100	D	18	35.3	C	28	31.6
		SB Approach			D		48.7	D		37.6
Battlefield Parkway & Greenway EB On-Ramp	Signalized	Overall LOS			F		80.1	F		80.1
		EB	EBT		A	109	7.7	A	86	3.8
			EBR	150	A	28	7	A	8	2.7
		EB Approach			A		7.5	A		3.6
		WB	WBL	150	D	80	37.9	D	15	46
			WBT		A	124	3.3	A	146	3.5
		WB Approach			B		11.9	A		4.7
		NB Approach			A		0	A		0
		SB	SBLT		D	52	40.6	D	18	48.5
			SBR	150	D	44	38.7	D	15	46.4
Battlefield Parkway & Miller Drive	Signalized	SB Approach			D		39.3	D		47.2
		Overall LOS			B		12.1	B		12.1
		EB	EBL	150	B	10	15.9	B	7	17.2
			EBT		C	152	20.3	C	159	23.4
			EBR	150	B	17	13.1	B	10	13.6
		EB Approach			B		18.5	C		22.9
		WB	WBL	150	B	29	13	B	28	14.8
			WBT		B	195	19.3	B	144	19.5
			WBR	150	B	16	12.6	B	16	10.6
		WB Approach			B		18.4	B		17.9
		NB	NBL	150	B	35	13.3	B	55	16.6
			NBTR		B	11	16.4	C	35	20.8
		NB Approach			B		14.3	B		18.6
		SB	SBL	150	B	16	15.5	B	78	13.5
			SBTR		B	9	17.7	B	20	18.4
		SB Approach			B		16.7	B		15.6
		Overall LOS			B		18.6	B		18.6

*The '#' indicates 95th percentile volume exceeds capacity, queue may be longer and the queue shown is the maximum after two cycles.

*The 'm' indicates that the volume for the 95th percentile queue is metered by upstream signal.

Table 2 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Existing (2 of 6)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Leesburg Bypass & Sycolln Road	Signalized	EB	EBL	550	F	#256	129.8	F	#399	155.8
			EBT		F	#1851	106.4	E	1276	55.8
			EBR	700	C	104	30.4	C	46	27.6
		EB Approach			F		97.3	E		61.2
		WB	WBL	250	F	197	112.9	F	180	108.6
			WBT		D	866	42.8	F	#1830	114.7
			WBR		C	38	26.3	C	103	29.3
		WB Approach			D		51.1	F		109.9
		NB	NBL	750	F	#372	110.5	F	#1064	389.9
			NBT		F	#657	192.9	F	#912	291.2
			NBR	275	F	564	93.2	E	382	74.6
		NB Approach			F		132.1	F		260.1
		SB	SBLTR		F	#612	197.4	F	#373	115.2
		SB Approach			F		197.4	F		115.2
		Overall LOS			F		98.1	F		98.1
Hope Parkway & Sycolln Road	Unsignalized	EB	EBL		F	86	59.8	F	97	149.5
			EBR		C	37	18.7	B	11	12.1
		EB Approach			E		36	F		72.1
		NB	NBL		A	3	9.8	A	11	9.2
			NBT			0	0		0	0
		NB Approach					0.5			1
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
		SB Approach					0			0
		Overall LOS			A		5.4	A		5.4
Battlefield Parkway & Sycolln Road	Signalized	EB	EBL	350	B	89	19.6	C	200	23.4
			EBT		C	128	27.7	C	189	32.5
			EBR	350	C	35	20.7	C	27	21
		EB Approach			C		24.3	C		26.2
		WB	WBL	375	C	90	21.6	C	68	30.2
			WBT		C	244	33.7	D	196	41.5
			WBR	375	C	34	20.6	C	93	29.4
		WB Approach			C		29.9	D		36.9
		NB	NBL	250	D	36	39.2	D	104	43.5
			NBT		C	120	29.3	D	353	35.3
			NBR	250	C	22	20	C	32	20.2
		NB Approach			C		29.5	C		34.7
		SB	SBL	250	D	71	38.4	D	75	44.3
			SBT		C	252	32.6	C	130	29.7
			SBR	250	B	37	18.1	B	32	16.6
		SB Approach			C		30.5	C		29.1
		Overall LOS			C		28.8	C		28.8

Table 2 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Existing (3 of 6)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Route 7 & Battlefield Parkway	Signalized	EB	EBL	350	F	85	100.3	F	156	101.8
			EBT		D	1405	48.4	C	797	34.5
			EBR	350	B	26	10.9	B	55	14.6
		EB Approach				D	48.8	D		38.2
		WB	WBL	350	F	#250	113.2	F	312	99
			WBT		C	531	21.6	D	#1640	47.1
			WBR	350	A	18	7.9	A	157	9.2
		WB Approach				C	31.8	D		49
		NB	NBL	350	F	80	98.2	F	78	98
			NBT		F	136	85.5	F	231	101.4
			NBR	350	F	#710	107.6	F	520	80.6
		NB Approach				F	101.2	F		90.6
		SB	SBL	350	F	118	101.3	F	189	102.5
			SBT		F	190	86.3	F	155	84.8
			SBR	350	E	169	70.7	E	230	68.6
		SB Approach				F	86.7	F		66.7
		Overall LOS				D	80.5	D		50.5
Tolbert Lane & Sycolin Road	Signalized	EB	EBLT		C	7	29	C	5	29.1
			EBR	250	C	35	29.2	C	20	29.2
		EB Approach				C	29.2	C		29.2
		WB	WBLT		C	20	29.5	C	20	29.5
			WBR		C	18	29	C	12	29.1
		WB Approach				C	29.2	C		29.3
		NB	NBLT		A	78	3.3	C	#794	34.3
			NBR	100	A	2	1.9	A	2	1.9
		NB Approach				A	3.3	C		34.1
		SB	SBLTR		A	295	7.2	A	76	3.4
		SB Approach				A	7.2	A		3.4
		Overall LOS				A	7.9	A		7.9
Tavistock Drive & Sycolin Road	Unsignalized	EB	EBLTR		D	14	27.6	F	228	356.7
		EB Approach				D	27.6	D		27.6
		WB	WBLT		E	70	44.3	F	33	60
		WB Approach				E	44.3	E		44.3
		NB	NBLT		A	3	1	A	1	0.4
			NBR			0	0		0	0
		NB Approach					1			1
		SB	SBLT		A	1	0.3	A	4	1.4
			SBR			0	0		0	0
		SB Approach					0.3			0.3
		Overall LOS				B	4	B		4
Miller Drive & Sycolin Road	Unsignalized	EB	EBL		C	14	21.7	F	212	139.7
		EB Approach				C	21.7	F		139.7
		NB	NBLT		A	3	1.3	A	1	0.5
		NB Approach					1.3	F		60
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
		SB Approach					0			0.4
		Overall LOS				A	1.1	A		1.1

Table 2 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background Existing (4 of 6)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Loudoun Center Place & Sycolin Road	Unsignalized	WB	WBL		D	12	26.1	E	27	45.3
			WBR		B	15	10.7	D	128	33.5
		WB Approach			B		13.4	F		139.7
		NB	NBT			0	0		0	0
			NBR			0	0		0	0
		NB Approach					0			0
		SB	SBL		A	14	9	B	23	12.8
			SBT			0	0		0	0
		SB Approach					2.9			2.6
		Overall LOS			A		3.5	A		3.6
Shreve Mill Road & Evergreen Mills Road	Unsignalized	WB	WBLR		C	21	20.9	C	23	22
		WB Approach			C		20.9	D		34.9
		NB	NBT			0	0		0	0
			NBR			0	0		0	0
		NB Approach					0			
		SB	SBLT		A	1	0.3	A	1	0.3
		SB Approach					0.3			
Shreve Mill Road & Greenway EB On-Ramp	Unsignalized	EB	EBTR			0	0		0	0
		EB Approach					0	C		22
		WB	WBL		A	1	7.5	A	1	7.3
			WBT			0	0		0	0
		WB Approach					2			6
		SB	SBL		A	0	0	A	0	0
			SBT		A	0	0	A	0	0
			SBR		A	0	8.8	A	0	0
		SB Approach			A		8.8			0.3
		Overall LOS			A		1	A		1
Shreve Mill Road & Greenway WB On-Ramp	Unsignalized	EB	EBL		A	0	7.3	A	0	7.3
			EBT			0	0		0	0
		EB Approach					0.5			0
		WB	WBTR			0	0		0	0
		WB Approach					0			
		NB	NBL		A	1	9.3	A	4	9.3
			NBT		A	0	0	A	0	0
			NBR		A	2	8.5	A	3	8.7
		NB Approach			A		8.9	A		0
Cochran Mill Road & Sycolin Road	Unsignalized	Overall LOS			A		2.4	A		2.4
		WB	WBLR		C	5	15.5	B	2	14
		WB Approach			C		15.5			0.2
		NB	NBTR			0	0		0	0
		NB Approach					0			
		SB	SBLT		A	0	0.1		0	0
Shreve Mill Road & Sycolin Road	Unsignalized	SB Approach					0.1			0
		Overall LOS			A		0.5	A		0.5
		EB	EBLR		B	10	14.4	C	16	18.3
		EB Approach			B		14.4	B		14
		NB	NBLT		A	2	0.9	A	1	0.3
		NB Approach					0.9			0
Shreve Mill Road & Sycolin Road	Unsignalized	SB	SBTR			0	0		0	0
		SB Approach					0			0
		Overall LOS			A		1.2	A		1.2



Table 2 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background Existing (5 of 6)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Gulick Mill Road & Sycolin Road	Unsignalized	EB	EBLR		B	4	13.3	C	2	16
		EB Approach			B		13.3	C		16.3
		NB	NBLT		A	0	0	A	1	0.3
		NB Approach					0			0.3
		SB	SBTR			0	0		0	0
		SB Approach					0			0
		Overall LOS			A		0.4	A		0.4
Sycolin Road & Belmont Ridge Road	Signalized	EB	EBL	275	D	83	41.6	E	92	63.7
			EBT		E	405	62.4	E	211	73.8
			EBR		D	96	41.9	E	57	61.9
		EB Approach			D		54	E		67.8
		WB	WBL	300	D	144	53.2	D	150	50
			WBTR		E	138	55.5	E	#548	70
		WB Approach			D		54.8	E		67.8
		NB	NBL	350	B	79	14.8	B	145	18.5
			NBTR		B	332	16.6	C	558	23.5
		NB Approach			B		16.3	C		22.3
		SB	SBLTR		C	341	30.5	D	320	38.2
		SB Approach			C		30.5	D		38.2
		Overall LOS			D		36.4	D		36.4
Greenway WB On-Ramp & Belmont Ridge Road	Unsignalized	WB	WBLT		D	2	30.1	F	23	61.8
			WBR		B	6	12.5	D	139	34.5
		WB Approach			B		14.3	B		36.8
		NB	NBL		A	2	9.5	A	3	9.5
			NBT			0	0		0	0
		NB Approach					0.5			0.4
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
Greenway EB Off- Ramp & Belmont Ridge Road	Unsignalized	SB Approach					0			0
		Overall LOS			A		0.6	A		0.6
		EB	EBL		C	5	17.8	C	4	24.7
			EBR		B	6	11.3	B	2	12.4
		EB Approach			B		13.5	E		17.1
		NB	NBT			0	0		0	0
		NB Approach					0			0
Route 7 WB Ramps & Crosstrail Boulevard	Signalized	SB	SBT			0	0		0	0
		SB Approach					0			0
		Overall LOS			A		0.9	A		0.9
		EB Approach			A		0	C		0
		WB	WBL	400	C	50	29.6	C	62	17
			WBLT		C	50	29.6	C	63	17
			WBR		A	0	0.1	A	0	0.7
		WB Approach			B		11.7	B		11.7
		NB	NBL	500	D	37	38.2	D	52	18.7
			NBT		A	1	0.3	A	24	4.9
		NB Approach			B		11	B		11
		SB	SBT		A	102	8	A	82	15.5
			SBR	500	A	16	3.2	A	11	4.8
		SB Approach			A		8.8	A		8.8
		Overall LOS			A		8.7	A		8.7

Table 2 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Existing (6 of 6)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Route 7 EB Ramps & Crosstrail Boulevard	Signalized	EB	EBL	400	C	63	30.9		57	30.9
			EBLT		C	62	30.9		57	30.9
			EBR	400	C	41	28.7		48	28.7
		EB Approach			C		28.9	A		0
		WB Approach			A		0	A		5.1
		NB	NBT		B	34	11.6	A	80	11.6
			NBR	400	B	29	11.7		31	11.7
		NB Approach			B		11.6	B		10.8
		SB	SBL	500	C	53	20.5		80	20.5
			SBT		A	0	0.6	B	35	0.6
		SB Approach			B		15.9	B		13.1
		Overall LOS			B		18.4	B		18.4
Cochran Mill Road & Crosstrail Boulevard	Signalized	EB	EBL		B	30	14.2	C	37	26.3
			EBT		A	2	8	C	2	26.3
		EB Approach			B		13.9	C		25.7
		WB	WBT		B	2	17.6		5	
			WBR		A	12	7.7		17	
		WB Approach			A		8	A		0
		SB	SBL	325	A	20	8.4	C	18	25.4
			SBR	325	A	5	2.2		6	
		SB Approach			A		5.3	B		13.9
		Overall LOS			A		9.2	A		9.2

As indicated in the figures, the existing conditions analysis identified the following deficiencies on the existing transportation system. Appropriate mitigations to address these deficiencies are also provided below.

- A signal is needed and is already planned at Route 15/Masons Lane.
- Double left turn lanes on WB Battlefield Parkway and modified signal timings are needed at the Battlefield Parkway/Evergreen Mill Road intersection.
- A new interchange is needed at the Sycolin Road/Leesburg Bypass intersection.
- A signal is needed at the Sycolin Road/Hope Road intersection and has been proffered by others.
- A signal is needed at the Sycolin Road/Tavistock Drive intersection.
- A signal is needed at the Sycolin Road/Miller Drive intersection.
- A signal is needed at Sycolin Road/Loudoun Center Place intersection.
- A signal is needed at Belmont Ridge Parkway/Dulles Greenway WB ramp terminal intersection.

Table 3 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background 2013 (6 of 6)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Exdsting/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Route 7 EB Ramps & Crosstrail Boulevard	Signalized	EB	EBL	400	C	63	30.9	C	57	30.9
			EBLT		C	63	30.9	C	58	30.9
			EBR	400	C	41	28.7	C	48	28.7
		EB Approach			C		29.8	A		29.8
		WB Approach			A		0	A		0
		NB	NBT		B	35	11.8	B	83	11.8
			NBR	400	B	30	11.9	B	33	11.9
		NB Approach			B		11.9	B		11.9
		SB	SBL	500	B	56	19.8	B	82	19.8
			SBT		A	0	0.2	A	37	0.2
		SB Approach			B		14.9	B		14.9
		Overall LOS			B		17.8	B		17.8
Cochran Mill Road & Crosstrail Boulevard	Signalized	EB	EBL		B	32	14.2	C	38	26.3
			EBT		A	2	8	C	2	26.3
		EB Approach			B		14	C		25.7
		WB	WBT		B	2	17.6		5	
			WBR		A	12	7.8		19	
		WB Approach			A		9	A		0
		SB	SBL	325	A	23	8.4	C	19	25.4
			SBR	325	A	5	2.2		6	
		SB Approach			A		5.5	B		13.9
		Overall LOS			A		9.2	A		9.2
Site- driveway & Sycolin Road	Signalized	WB	WBLR		C	0	22.3		46	
		WB Approach			C		22.3	B		11.4
		NB	NBTR		A	105	5		301	
		NB Approach			A		5			
		SB	SBL	200	A	6	2.2	B	2	11.8
			SBT		A	102	2.6		47	
		SB Approach			A		2.6	A		5.2
Overall LOS			A		2.5	A		1.5		

PROPOSED DEVELOPMENT (PHASE 1)

The proposed Stonewall Secure Business Park will be constructed in phases, achieving full build out in 2020. Phase 1 is anticipated to be constructed by year 2013, and will consist of approximately 900,000 square-feet of data center and 100,000 square-feet of office space. Access to the site is proposed via a single site-access driveway on Sycolin Road.

Trip Generation

Trip generation estimates for the proposed development were developed using the standard reference *Trip Generation, 8th Edition* (Reference 4) published by the Institute of Transportation Engineers (ITE), and trip generation data for Data Centers collected at several locations throughout the United States. Detailed trip generation information for Data Centers can be found in Appendix "G" of this report. Table 4 summarizes the trip generation estimates (rounded to the nearest five vehicles) for the proposed development.

Table 4 Estimated Phase 1 Trip Generation for 2013 - 20 Percent Build-Out

Land use	ITE Code	Size (s.f.)	Daily Trips	Peak Hour					
				Weekday AM			Weekday PM		
				Total	In	Out	Total	In	Out
Data Center*	N/A	900,000	1,280	200	170	30	235	70	165
		Rate per 1,000 SF	1.42	0.19	0.03	0.22	0.08	0.18	0.26
General Office	710	100,000	1,330	190	165	25	190	30	160
Net New Trips (Phase 1)			2,610	390	335	55	425	100	325

* Detailed data center trip generation data provided in Appendix "G."

As shown in Table 2, Phase 1 of the development is estimated to generate approximately 2,610 net new weekday daily trips, 390 weekday a.m. (335 in, 55 out) and 425 weekday p.m. (100 in, 325 out).

Trip Distribution and Trip Assignment

Trip distribution estimates for the proposed project were developed based on existing travel patterns observed near the site and a major origin/destination patterns in the site vicinity. Figure 13 illustrates the estimated trip distribution pattern. Figures 14 and 15 illustrate the assignment of site-generated trips to the surrounding roadway network during the weekday a.m. and p.m. peak hours, respectively.

Trip Generation

Table 7 summarizes the trip generation estimates (rounded to the nearest five vehicles) for Phase 2 build out of the proposed development. General Office trip generation was estimated using the ITE fitted curve equation given the size of the overall office space considered and the fact that the average rate would overestimate trips. The net new trip generation for Phase 2 office space is calculated by taking the difference in trip generation between the net total assumed for year 2015 (300,000 square-feet) and subtracting the calculated trips assumed for Phase 1 (100,000 square-feet).

Table 7 Estimated Phase 2 Trip Generation for 2015 - 60 Percent Build-Out

Land use	ITE Code	Size (s.f.)	Daily Trips	Peak Hour of Generator					
				Weekday AM			Weekday PM		
				Total	In	Out	Total	In	Out
Phase 1									
Data Center ¹	N/A	900,000	1,280	200	170	30	235	70	165
General Office	710	100,000	1,330	190	165	25	190	30	160
Phase 1 Net New Trips			2,610	390	335	55	425	100	325
Phase 2									
Data Center ¹	N/A	1,800,000	2,550	395	345	50	465	145	320
General Office	710	200,000	1,780	260	230	30	225	40	185
Phase 2 Net New Trips			4,330	655	575	80	690	185	505
TOTAL (Phase 1 + Phase 2)			6,940	1,045	910	135	1,115	285	830

¹ Detailed data center trip generation data provided in Appendix "G."

As shown in Table 7, Phase 2 is estimated to generate approximately 4,330 net new weekday daily trips, 655 weekday a.m. (575 in, 80 out) and 690 weekday p.m. (185 in, 505 out) peak hour trips. Overall, the combined Phase 1 and 2 impact will account for a total of approximately 6,940 net new weekday daily trips, 1,045 weekday a.m. (910 in, 135 out), and 1,115 weekday p.m. (285 in, 830 out) peak hour trips.

Trip Distribution and Trip Assignment

Trip distribution estimates for the proposed project were developed based on existing travel patterns observed near the site and a major origin/destination patterns in the site vicinity. Figure 13 illustrates the estimated trip distribution pattern. Figures 24 and 25 illustrate the assignment of site-generated trips to the surrounding roadway network during the weekday a.m. and p.m. peak hours, respectively.

Table 13 Estimated Year 2020 Trip Generation

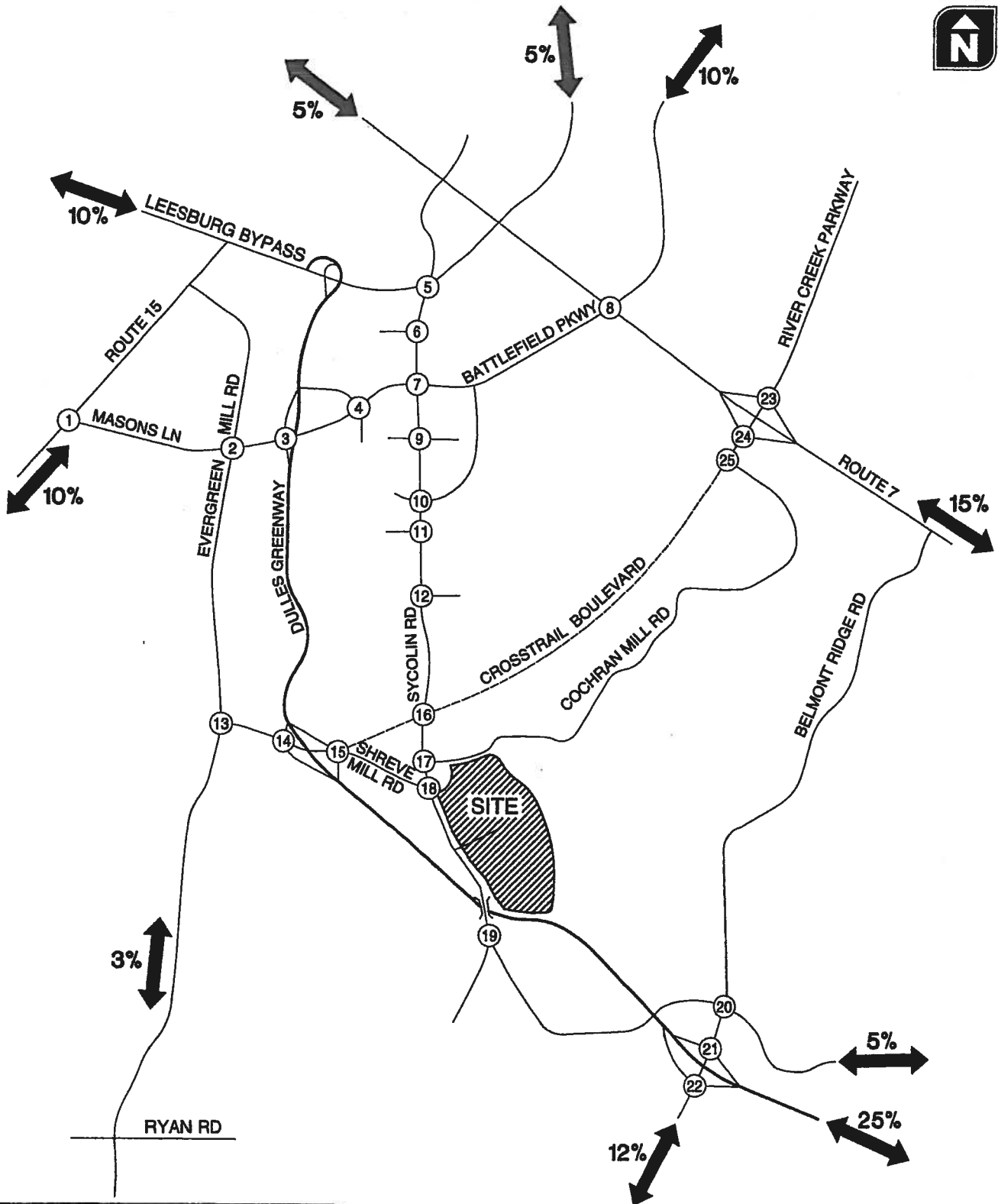
Land use	ITE Code	Size (s.f.)	Daily Trips	Peak Hour of Generator					
				Weekday AM			Weekday PM		
				In	Out	Total	In	Out	Total
Data Center ¹	N/A	4,500,000	6,390	855	135	990	360	810	1,170
		Rate per 1,000 SF	1.42	0.19	0.03	0.22	0.08	0.18	0.26
General Office	710	500,000	4,605	600	80	680	109	530	640
Net New Trips			10,995	1,455	215	1,670	470	1,340	1,810

¹ Detailed data center trip generation data provided in Appendix "G."

As shown in Table 13, the 2020 with full build-out is estimated to generate approximately 10,995 net new weekday daily trips, 1,670 weekday a.m. (1,455 in, 217 out) and 1,810 weekday p.m. (470 in, 1,340 out).

Trip Distribution and Trip Assignment

Trip distribution estimates for the proposed project were developed based on existing travel patterns observed near the site and a major origin/destination patterns in the site vicinity. Figure 13 illustrates the estimated trip distribution pattern. Figures 44 and 45 illustrate the assignment of site-generated trips to the surrounding roadway network with the Crosstrail Boulevard extension during the weekday a.m. and p.m. peak hours, respectively.



LEGEND

- ## STUDY INTERSECTIONS
- XX% TRIP DISTRIBUTION PERCENTAGES

ESTIMATED TRIP DISTRIBUTION PATTERN
LOUDOUN COUNTY, VA

FIGURE
13

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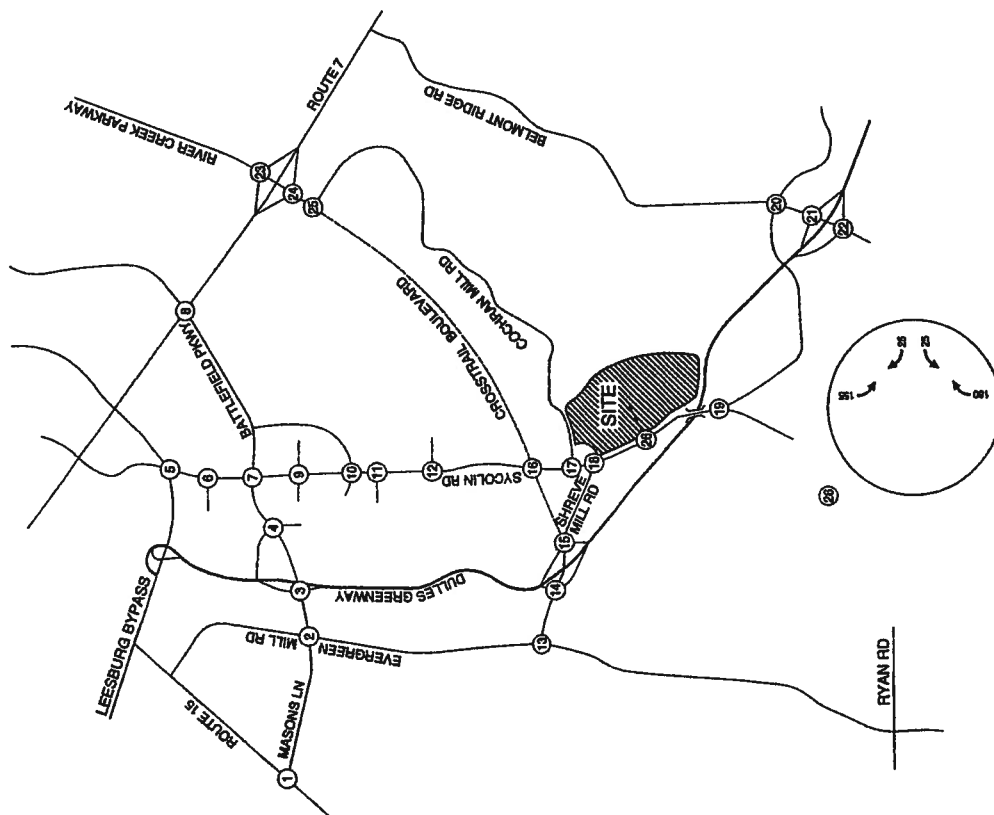
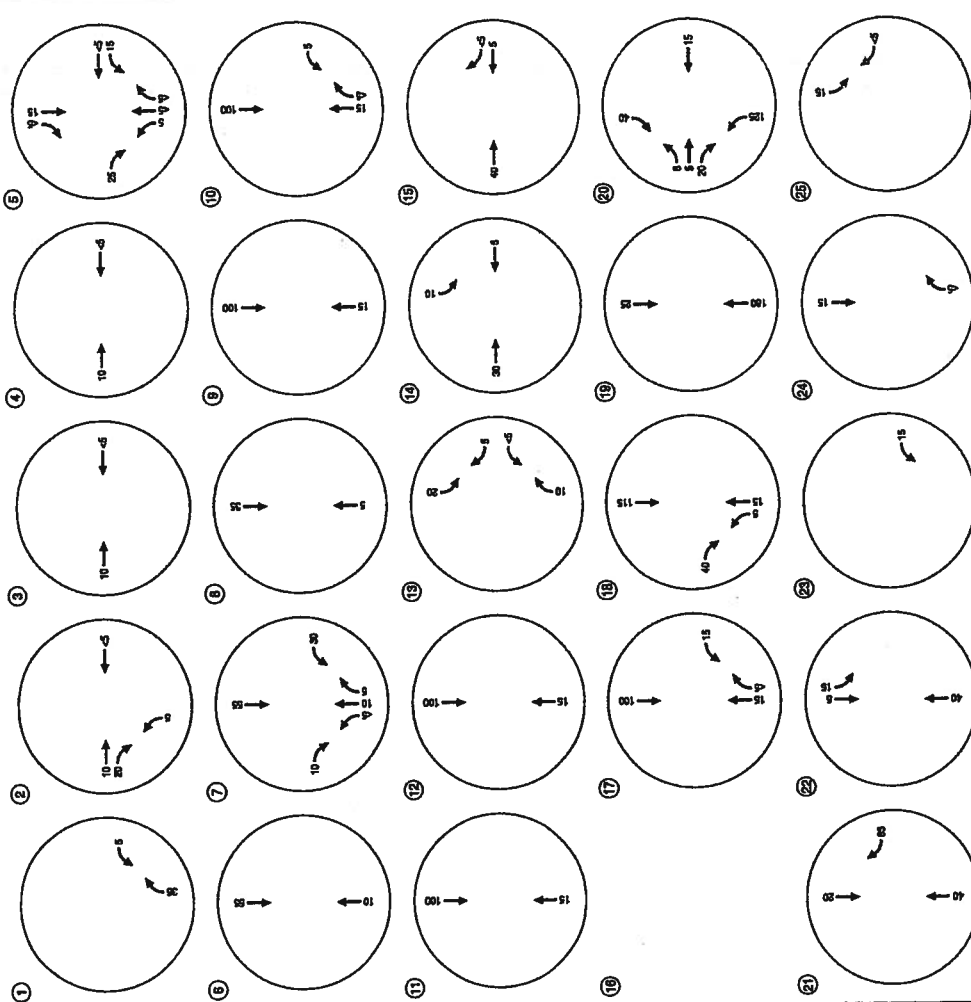


Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Masons Ln & Route 15	Signalized	WB	WBLR		D	90	43.4	D	#470	41.4
		WB Approach			D		43.4	D		41.4
		NB	NBTR		D	#1155	46.8	C	564	31.1
		NB Approach			D		46.8	C		31.1
		SB	SBL	300	C	60	31.7	B	42	16.8
		SBT			A	104	2.9	B	523	18.5
		SB Approach			A		8.2	B		18.4
		Overall LOS			D		36.3	D		36.3
Masons Lane & Evergreen Mills Road	Signalized	EB	EBLTR		F	#977	264	C	173	22.6
		EB Approach			F		264	C		22.6
		WB	WBLT		F	#1147	700.1	D	#674	49.7
		WBR	100	B	30	10.5	B	203	15.5	
		WB Approach			F		627.9	D		35.4
		NB	NBL	100	D	43	39	D	106	39.6
		NBT			E	#549	63.5	F	#1174	297.2
		NBR	100	E	#513	69.3	F	#657	122.2	
		NB Approach			E		65.7	F		209.5
		SB	SBL	100	D	#214	43.5	D	167	47.3
		SBT			E	#741	59.9	D	315	40.7
		SBR	100	C	21	31.9	C	36	33.4	
		SB Approach			D		54.7	D		42.2
		Overall LOS			F		254.2	F		254.2
Battlefield Parkway & Greenway EB On- Ramp	Signalized	EB	EBT		A	161	9.9	A	116	5
		EBR	150	A	47	8.6	A	10	3.4	
		EB Approach			A		9.6	A		4.9
		WB	WBL	150	D	97	37.7	D	18	45.7
		WBT			A	189	4.8	A	258	7.6
		WB Approach			B		12.9	A		8.6
		NB Approach			A		0	A		0
		SB	SBLT		D	60	39	D	21	46.2
		SBR	150	D	48	37.3	D	16	44.7	
		SB Approach			D		37.8	D		45.3
Battlefield Parkway & Miller Drive	Signalized	Overall LOS			B		13.3	B		13.3
		EB	EBL	150	B	12	15.2	B	7	16.9
		EBT			C	215	20.8	C	209	25
		EBR	150	B	18	12.2	B	11	13.2	
		EB Approach			B		19.9	C		24.4
		WB	WBL	150	B	35	11.5	B	32	13.8
		WBT			B	264	18.4	B	194	19.5
		WBR	150	B	17	10.3	A	16	9.6	
		WB Approach			B		17.4	B		17.8
		NB	NBL	150	B	48	17.8	C	79	21.2
		NBTR			C	14	21.3	C	47	25.7
		NB Approach			B		18.9	C		23.3
		SB	SBL	150	B	23	18.6	B	112	17.9
		SBTR			C	12	21.9	C	24	22.7
		SB Approach			C		20.3	C		20.2
		Overall LOS			B		18.6	B		18.6

*The '#' indicates 95th percentile volume exceeds capacity, queue may be longer and the queue shown is the maximum after two cycles.

*The 'm' indicates that the volume for the 95th percentile queue is metered by upstream signal.

Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020 (2 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Leesburg Bypass & Sycolin Road	Signalized	EB	EBL	550	F	#366	162	F	#557	266
			EBT		F	#2956	267.4	F	#2102	162.2
			EBR	700	D	277	36.3	C	86	30.6
		EB Approach			F		228.3	F		158.4
		WB	WBL	250	F	#307	129.5	F	#263	127.1
			WBT		E	1387	62.4	F	#2822	302.5
			WBR		C	49	26.8	C	137	30.5
		WB Approach			E		70.9	F		274.7
		NB	NBL		F	#572	173.8	F	#1646	797.6
			NBT		F	#912	338	F	#1369	602.8
			NBR	275	F	#830	123.4	F	#1075	198.8
		NB Approach			F		210.2	F		552.4
		SB	SBLTR		F	#919	396.1	F	#567	179.9
		SB Approach			F		396.1	F		179.9
		Overall LOS			F		196	F		196
Hope Parkway & Sycolin Road	Signalized	EB	EBL		C	113	24.1	C	77	27.3
			EBR		C	53	22.2	C	40	25.2
		EB Approach			C		23	C		26.1
		NB	NBL	225	A	13	5.8	A	36	3.7
			NBT		A	95	5.2	A	243	6.1
		NB Approach			A		5.3	A		5.9
		SB	SBT		B	285	11	A	127	9.9
			SBR	225	A	17	6.9	A	22	8.2
		SB Approach			B		10.8	A		9.6
		Overall LOS			B		10.6	B		10.6
Battlefield Parkway & Sycolin Road	Signalized	EB	EBL	350	C	142	28.3	E	#372	66.4
			EBT		D	208	36.9	D	267	44.3
			EBR	350	C	72	28.5	C	31	26.9
		EB Approach			C		32.9	D		50.1
		WB	WBL	375	C	150	28.3	D	81	40.7
			WBT		D	398	46.8	E	274	58.7
			WBR	375	C	44	27.1	D	186	41.6
		WB Approach			D		40.8	D		52.1
		NB	NBL	250	E	57	55.2	E	165	63.5
			NBT		C	185	33.4	D	#715	52
			NBR	250	C	21	21.4	C	57	21.8
		NB Approach			D		35.4	D		50.6
		SB	SBL	250	D	108	54	E	102	61.4
			SBT		D	488	42.1	C	206	33.3
			SBR	250	B	48	19.9	B	103	19.2
		SB Approach			D		39.6	D		35.1
		Overall LOS			D		38	D		38

Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020 (3 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Route 7 & Battlefield parkway	Signalized	EB	EBL	350	F	102	107	F	#200	112
			EBT		F	#2378	158	E	#1372	55.6
			EBR	350	B	49	11	B	115	17.4
		EB Approach			F		153.6	E		57.4
		WB	WBL	350	F	224	110.1	F	357	99.1
			WBT		C	828	27.1	F	#2625	198.1
			WBR	350	A	21	8	B	243	10.9
		WB Approach			C		33.6	F		173.8
		NB	NBL	350	F	96	98.7	F	94	98.5
			NBT		F	181	87.4	F	#486	237.3
			NBR	350	F	#940	171.9	E	523	73.8
		NB Approach			F		140.8	F		156.3
		SB	SBL	350	F	145	108.8	F	#237	110.1
			SBT		F	#348	103.3	F	222	86.4
			SBR	350	E	258	73.8	E	337	69.4
		SB Approach			F		97.4	F		89
		Overall LOS			F		107.4	F		107.4
Tolbert Lane & Sycollin Road	Signalized	EB	EBLT		C	7	32.1	C	5	31.9
			EBR	250	C	41	32.4	C	24	32
		EB Approach			C		32.4	C		32
		WB	WBLT		C	27	32.9	C	24	32.3
			WBR		C	22	32.1	C	15	31.9
		WB Approach			C		32.4	C		32.1
		NB	NBL	200	A	9	3.9	A	29	2.7
			NBT		A	68	3.8	A	326	7.9
			NBR	100	A	4	3.1	A	4	3
		NB Approach			A		3.8	A		7.3
		SB	SBL	200	A	2	3.2	A	2	5.3
			SBTR		A	280	8	A	93	7.1
		SB Approach			A		7.9	A		7.1
		Overall LOS			A		8.7	A		8.7
Tavistock Drive & Sycollin Road	Unsignalized	EB	EBLTR		F	59	110.7	F	Err	Err
		EB Approach			F		110.7	F		Err
		WB	WBLT		F	341	682.1	F	156	627
		WB Approach			F		682.1	F		627
		NB	NBLT		A	5	1.9	A	1	0.1
			NBR			0	0		0	0
		NB Approach					1.8			0.1
		SB	SBLT		A	1	0.7	A	8	3.2
			SBR			0	0		0	0
		SB Approach					0.6			3
		Overall LOS			E		47.1	E		47.1
Miller Drive & Sycollin Road	Unsignalized	EB	EBL		F	62	71.6	F	Err	Err
		EB Approach			F		71.6	F		Err
		NB	NBLT		A	17	5.5	A	3	0.2
		NB Approach					5.5			0.2
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
		SB Approach					0			0
		Overall LOS			F		3.5	F		3.5

Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020 (4 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Loudoun Center Place & Sycollin Road	Unsignalized	WB	WBL		F	78	111.9	F	Err	Err
			WBR		B	21	12.4	F	476	353.3
		WB Approach			E		40.3	F		2906.6
		NB	NBT			0	0		0	0
			NBR			0	0		0	0
		NB Approach					0			0
		SB	SBL		B	19	10	C	49	21.1
			SBT			0	0		0	0
		SB Approach					1.8			5.7
		Overall LOS			A		5.6	A		5.6
Shreve Mill Road & Evergreen Mills Road	Unsignalized	WB	WBLR		F	83	57.3	F	177	92.3
		WB Approach			F		57.3	F		92.3
		NB	NBT			0	0		0	0
			NBR			0	0		0	0
		NB Approach					0			0
		SB	SBLT		A	9	2.9	A	4	1.3
		SB Approach					2.9			1.3
Shreve Mill Road & Greenway EB On- Ramp	Unsignalized	Overall LOS			D		4.7	D		4.7
		EB	EBTR			0	0		0	0
		EB Approach					0			0
		WB	WBL		A	10	8.2	A	4	7.6
			WBT			0	0		0	0
		WB Approach					5.3			2.1
		SB	SBL		C	7	15.4	B	2	12.4
			SBT		A	0	0	A	0	0
			SBR		A	1	8.9	A	0	0
		SB Approach			B		14.2	B		12.4
Shreve Mill Road & Greenway WB On- Ramp	Unsignalized	Overall LOS			A		3.5	A		3.5
		EB	EBL		A	0	7.6	A	0	7.7
			EBT			0	0		0	0
		EB Approach					0.2			0.1
		WB	WBT			0	0		0	0
			WBR			0	0		0	0
		WB Approach					0			0
		NB	NBL		B	3	11.6	B	7	11.1
			NBT		A	0	0	A	0	0
			NBR		A	6	9.4	A	16	9.5
Crosstrail Blvd & Sycollin Road	Signalized	NB Approach			A		10	A		9.9
		Overall LOS			A		1.9	A		1.9
		EB	EBL	300	D	45	38.6	D	69	49
			EBTR		D	48	41.5	E	#97	59.9
		EB Approach			D		41	E		57.3
		WB	WBL	300	C	#196	32.5	D	71	49.2
			WBTR		D	88	36.2	D	55	53.5
		WB Approach			C		34.6	D		52.1
		NB	NBL	300	C	11	20.5	A	22	6.1
			NBTR		B	223	13.7	E	#1459	76.2
		NB Approach			B		14	E		73
		SB	SBL	300	A	13	9	D	66	35.7
			SBTR		D	794	35.6	A	274	9.9
		SB Approach			C		34.9	B		13.4
		Overall LOS			C		30.4	C		30.4



Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020 (5 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Cochran Mill Road & Sycolin Road	Unsignalized	WB	WBLR		F	15	62.2	D	5	33.1
		WB Approach			F		62.2	D		33.1
		NB	NBTR			0	0		0	0
		NB Approach					0			0
		SB	SBTR		A	0	0.2		0	0
		SB Approach					0.2			0
Shreve Mill Road & Sycolin Road	Unsignalized	EB	EBLR		E	53	37.6	E	29	38.1
		EB Approach			E		37.6	E		38.1
		NB	NBLT		A	5	1.9	A	6	3.3
		NB Approach					1.9			3.3
		SB	SBTR			0	0		0	0
		SB Approach					0			0
Gulick Mill Road & Sycolin Road	Unsignalized	EB	EBLR		C	11	23.6	D	6	34.9
		EB Approach			C		23.6	D		34.9
		NB	NBLT		A	0	0	A	1	0.5
		NB Approach					0			0.5
		SB	SBTR			0	0		0	0
		SB Approach					0			0
Sycolin Road & Belmont Ridge Road	Signalized	EB	EBL	275	D	110	54.6	D	94	43.8
			EBTR		F	483	82.9	D	258	49.8
		EB Approach			F		80.3	D		49.3
		WB	WBL	300	E	169	58	D	134	42.6
			WBTR		E	240	61	E	554	66.7
		WB Approach			E		60.3	E		63.8
		NB	NBL	350	D	696	52.8	E	#635	61
			NBT		C	203	23.6	D	450	36.1
			NBR		B	25	15.5	C	33	23.5
		NB Approach			D		36.9	D		42.9
		SB	SBL	400	D	102	47.2	D	105	45
			SBTR		E	561	74.4	E	485	67.6
Greenway WB On-Ramp & Belmont Ridge Road	Unsignalized	WB	WBLT		F	6	65.3	F	94	638.6
			WBR		E	168	43	F	814	450.9
		WB Approach			E		43.4	F		461.4
		NB	NBL		B	4	10.7	B	8	13.2
			NBT			0	0		0	0
		NB Approach					0.5			0.6
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
		SB Approach					0			0
		Overall LOS			C		6.5	C		6.5

Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020 (6 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Greenway EB Off-Ramp & Belmont Ridge Road	Unsignalized	EB	EBL		D	12	28.2	E	10	48.7
			EBR		B	9	12.9	C	4	15.7
		EB Approach			C		17.9	D		28.4
		NB	NBT			0	0		0	0
		NB Approach					0			0
		SB	SBT			0	0		0	0
		SB Approach					0			0
		Overall LOS			C		1	C		1
Route 7 WB Ramps & Crosstrail Boulevard	Signalized	EB Approach			A		0	A		0
		WB	WBL	400	D	#164	39.2	C	117	24.9
			WBLT		D	#165	39.7	C	#118	25.1
			WBR		A	0	0.2	A	0	0.7
		WB Approach			C		23.9	B		10
		NB	NBL	500	C	38	32.5	C	70	20.3
			NBT		A	2	0.7	A	47	6
		NB Approach			A		8.7	B		11.5
		SB	SBT		B	145	12.4	B	116	19.6
			SBR	500	A	20	4.9	A	12	5.5
		SB Approach			B		10.5	B		16.4
		Overall LOS			B		14.5	B		14.5
Route 7 EB Ramps & Crosstrail Boulevard	Signalized	EB	EBL	400	C	73	30.9	C	68	26.6
			EBLT		C	73	30.8	C	68	26.6
			EBR	400	C	45	28.2	C	53	25.5
		EB Approach			C		29.5	C		25.9
		WB Approach			A		0	A		0
		NB	NBT		B	53	12.5	B	147	13.9
			NBR	400	B	40	12.7	B	49	14
		NB Approach			B		12.5	B		13.9
		SB	SBL	500	B	77	19.7	C	82	25.6
			SBT		A	27	1.8	A	66	4.4
		SB Approach			B		10.3	B		11.5
		Overall LOS			B		14.4	B		14.4

Table 12 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Background with Crosstrail Boulevard 2020 (7 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Cochran Mill Road & Crosstrail Boulevard	Signalized	EB	EBL	350	B	57	18.1	C	159	21.8
			EBT		B	5	16.7	B	7	17.7
			EBR	500	B	9	16.7	B	9	17.7
		EB Approach			B		18	C		21.6
		WB	WBL	250	C	13	28.1	C	17	31.9
			WBT		C	4	24.1	C	11	31.1
			WBR	350	B	24	15.5	C	44	26.4
		WB Approach			B		16.6	C		27.1
		NB	NBL	200	B	8	18.1	B	10	17.6
			NBT		B	34	19.3	C	140	20.6
			NBR	150	B	10	18.6	B	11	18.1
		NB Approach			B		19.2	C		20.5
		SB	SBL	325	A	46	8.6	B	48	11.7
			SBT		B	98	13	B	58	15.1
			SBR	325	A	18	6.7	A	20	5.7
Site-driveway & Sycolin Road	Signalized	SB Approach			B		11.1	B		10.4
		Overall LOS			B		14	B		14
		WB	WBL		C	71	25.9	E	#510	75
			WBR		B	21	11.3	D	450	41.4
		WB Approach			B		17.6	E		53.9
		NB	NBT		C	254	21.9	D	#889	40.7
			NBR	200	B	192	13.3	A	17	3.8
		NB Approach			B		17.2	D		35.8
		SB	SBL	200	C	192	21.4	D	108	54.7
			SBT		A	196	5.4	A	134	9
		SB Approach			B		13	C		25.8
		Overall LOS			B		14.9	B		14.9

PROPOSED DEVELOPMENT (FULL BUILD OUT)

Full build out of the Stonewall Secure Business Park is anticipated to be completed by year 2020, and will consist of a total of 4,500,000 square-feet of data center and 500,000 square-feet of office space. Access to the site will continue to be provided via a single site-access driveway on Sycolin Road.

Trip Generation

Table 13 summarizes the trip generation estimates (rounded to the nearest five vehicles) for full build out of the proposed development.

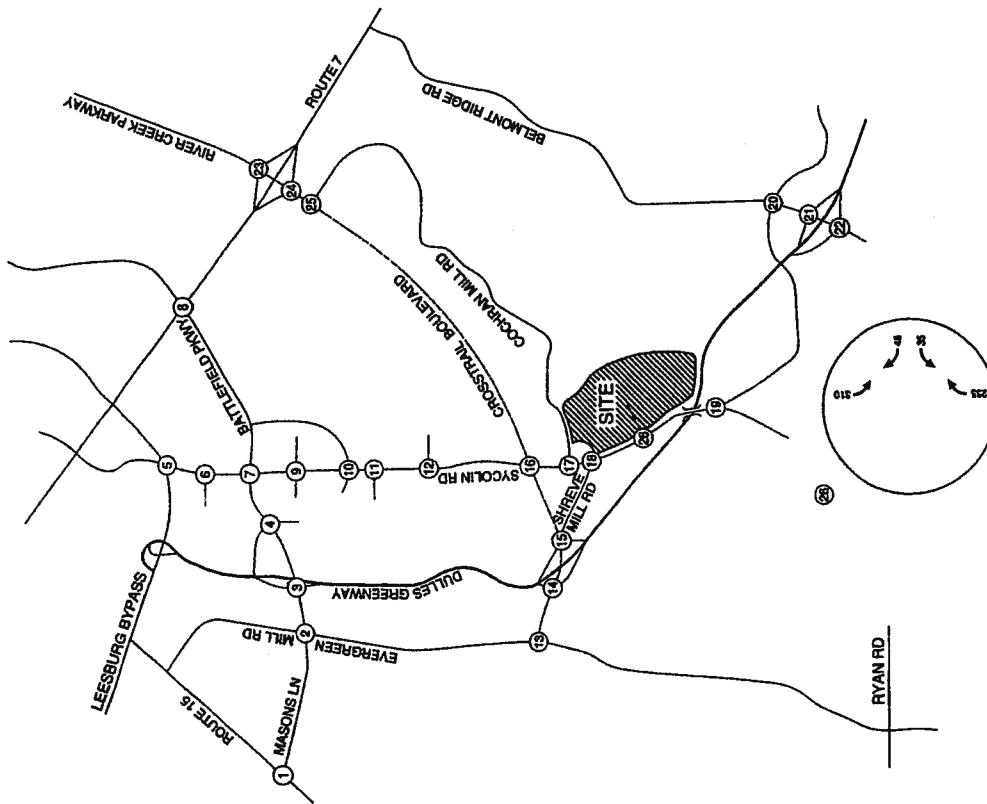
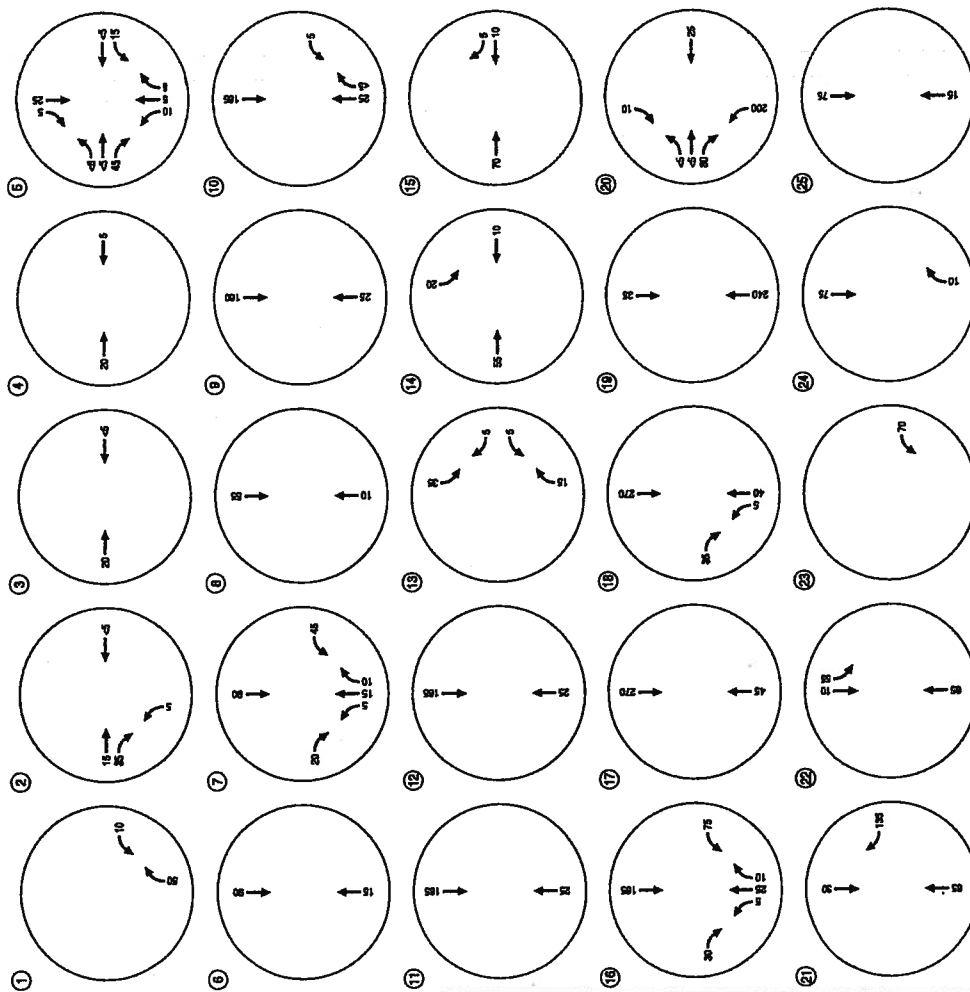
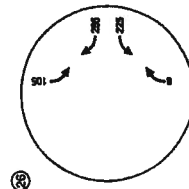
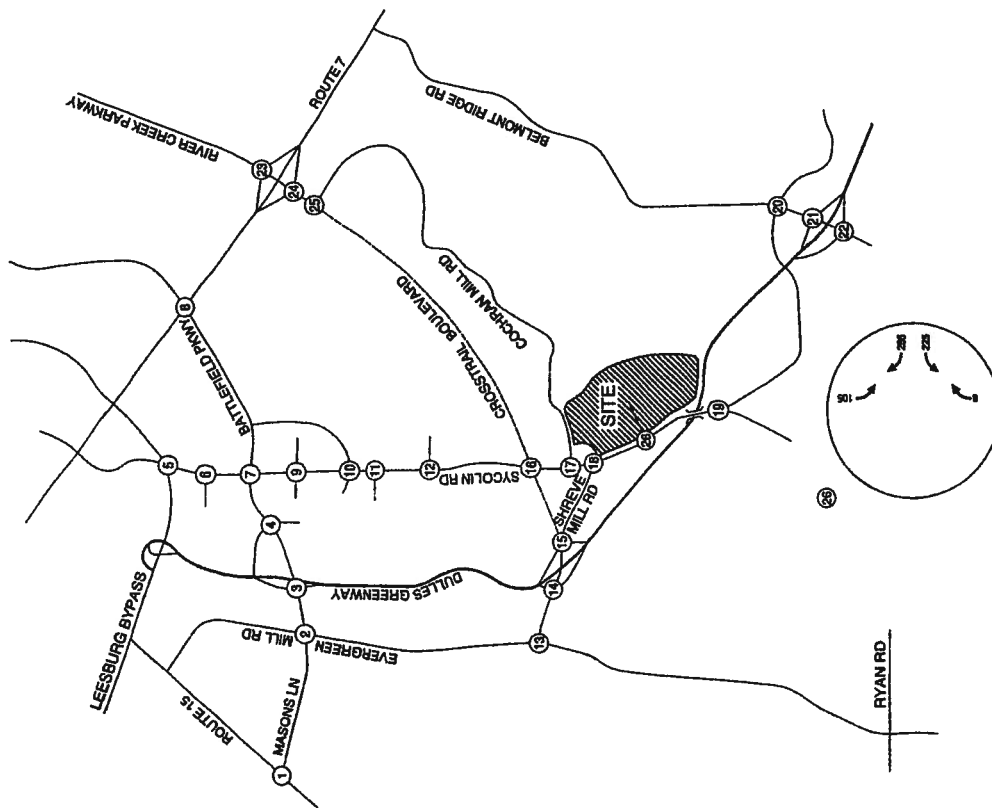
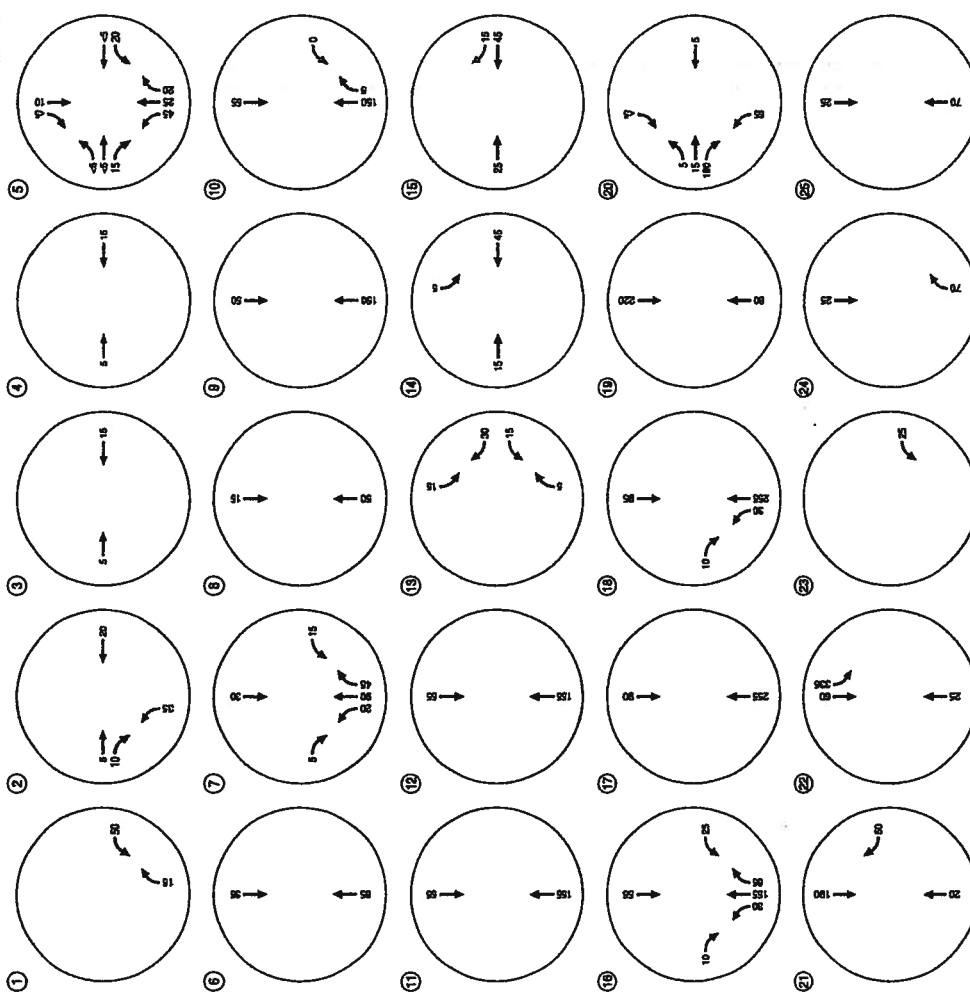
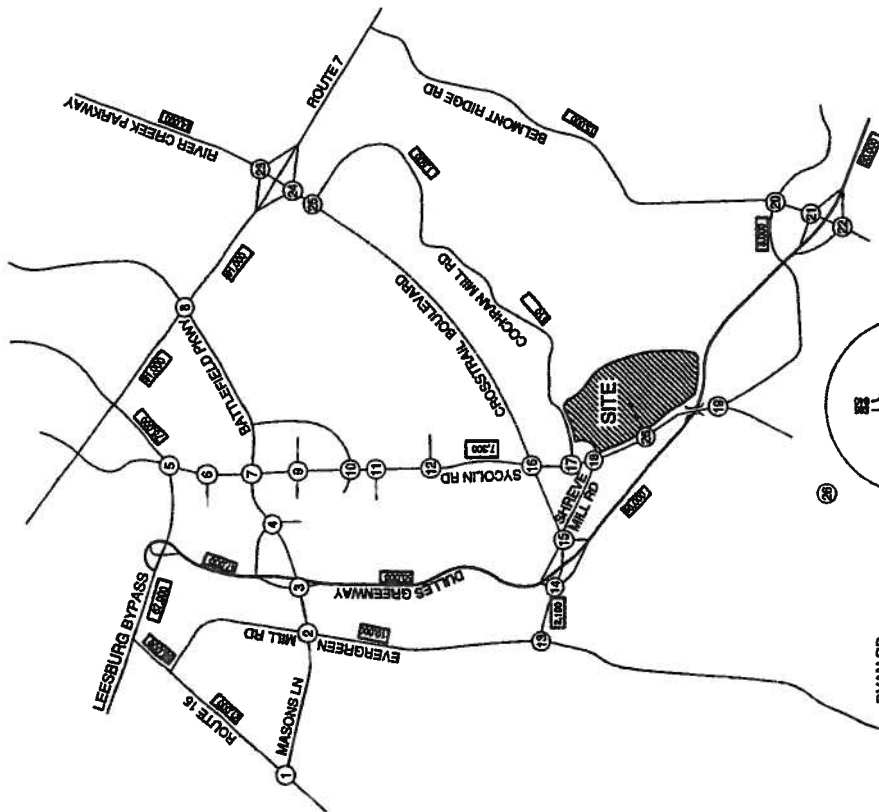
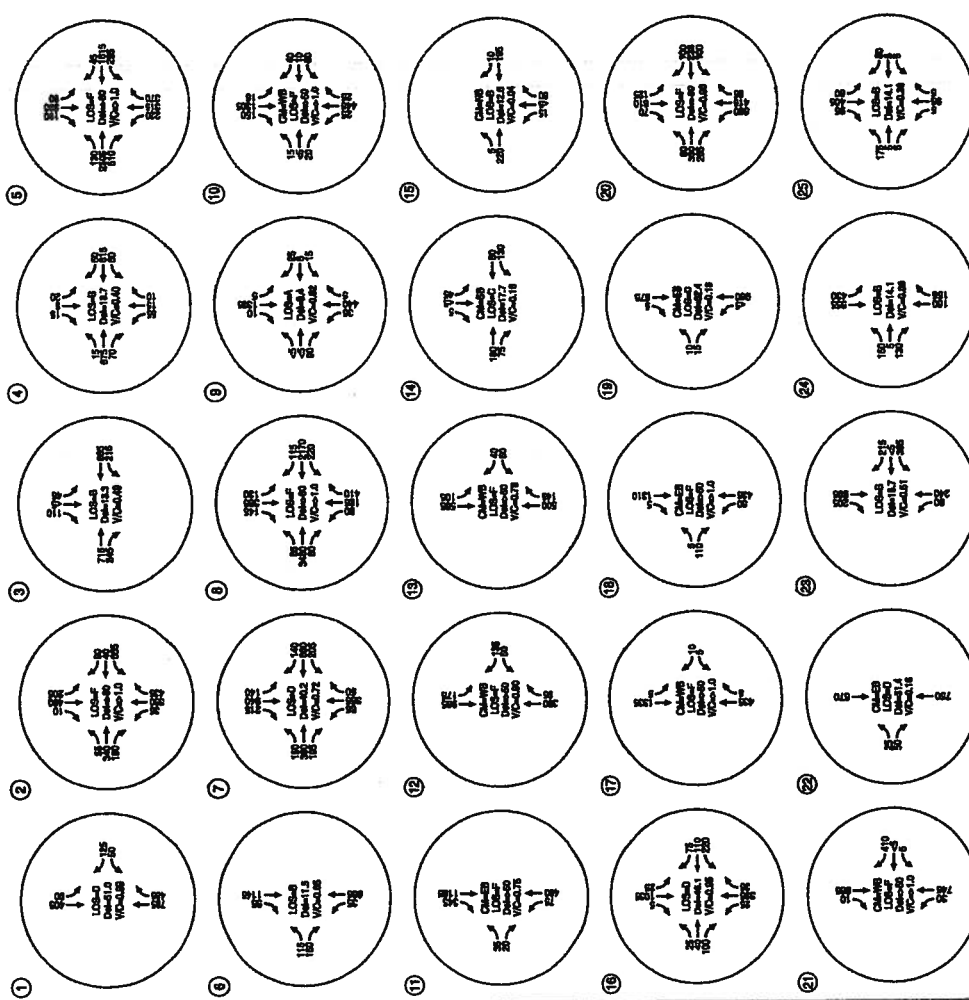


FIGURE 44
2020 SITE-GENERATED TRIPS WITH CROSSLAND BOULEVARD
WEEKDAY AM PEAK HOUR
LOUDOUN COUNTY, VA

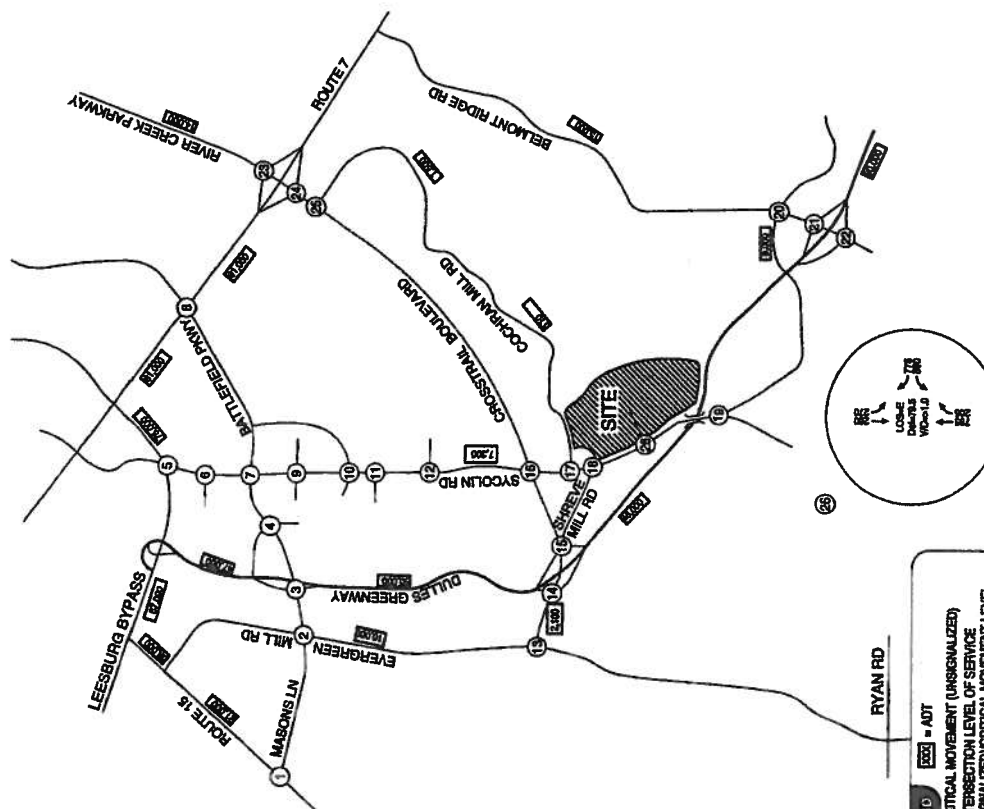
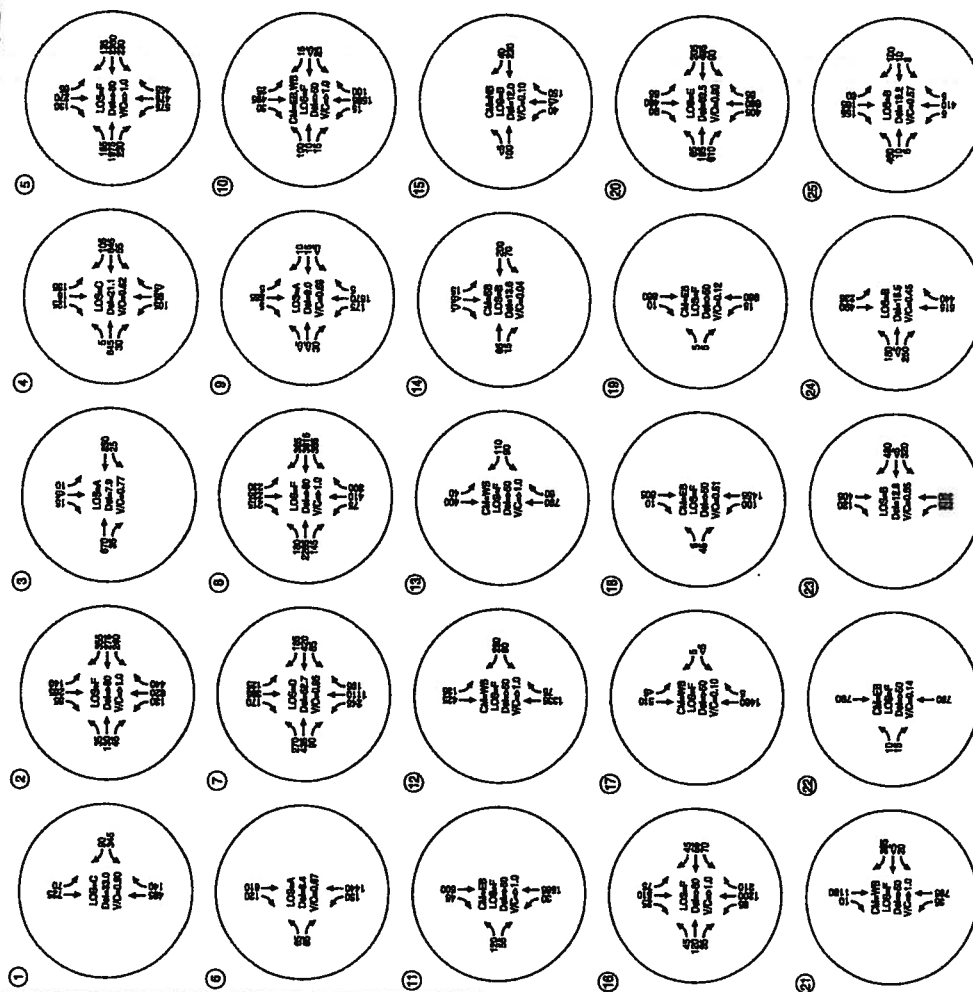




LEGEND

- CM - CRITICAL MOVEMENT (UNSERIALIZED)
- CM - CRITICAL MOVEMENT (SERIALIZED)
- LOS - INTERSECTION LEVEL OF SERVICE (UNSERIALIZED)
- LOS - INTERSECTION LEVEL OF SERVICE (SERIALIZED)
- Dd - INTERSECTION AVERAGE CONTROL DELAY (UNSERIALIZED)
- Dd - INTERSECTION AVERAGE CONTROL DELAY (SERIALIZED)
- VC - CRITICAL VOLUME-TO-CAPACITY RATIO

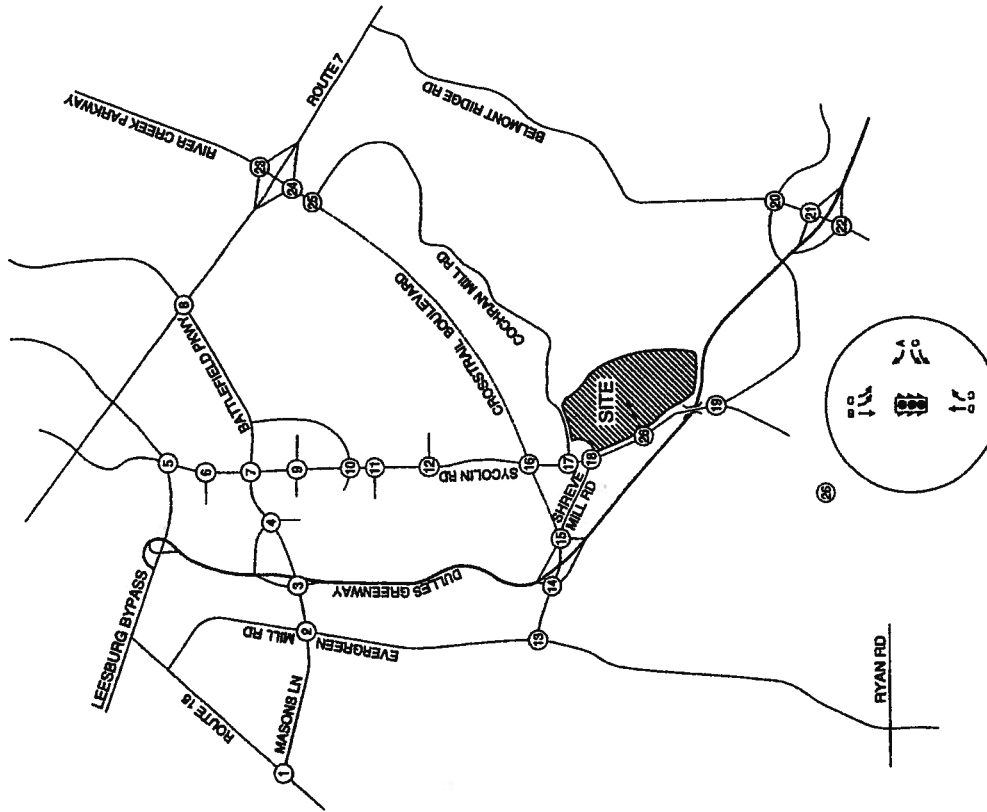
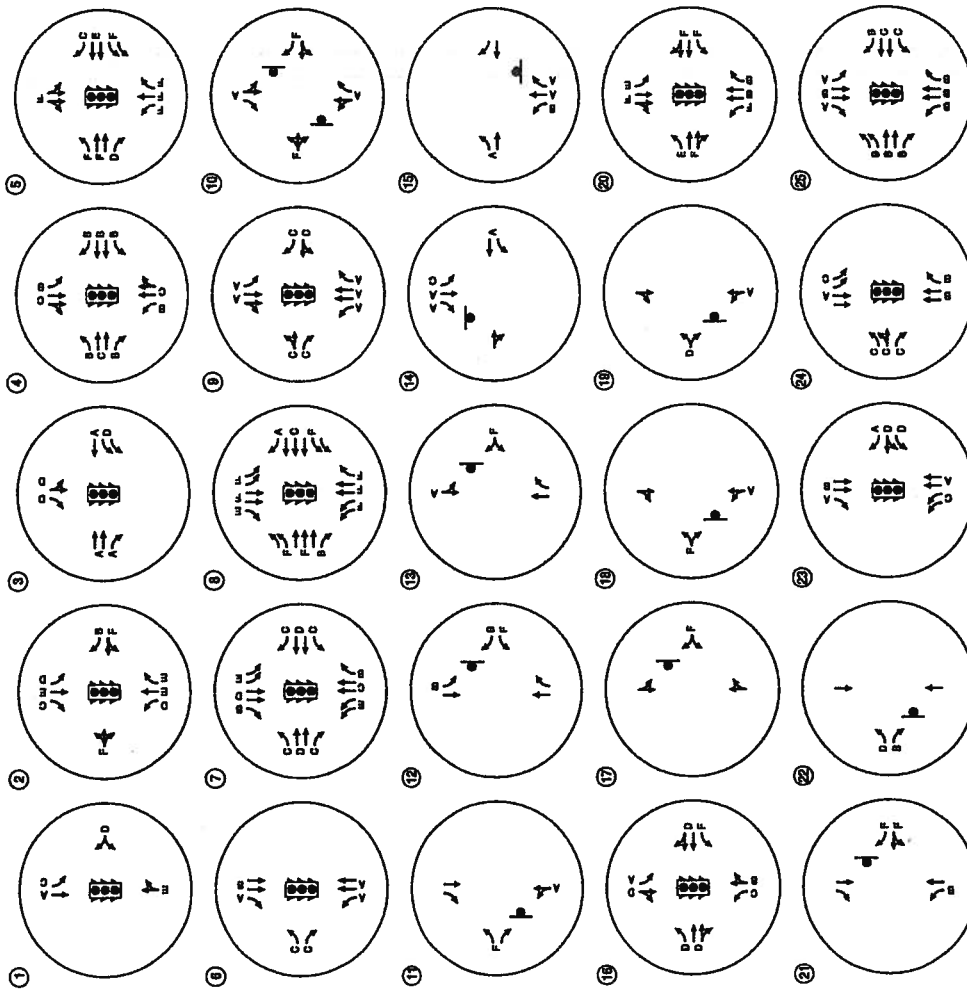
KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING / PLANNING



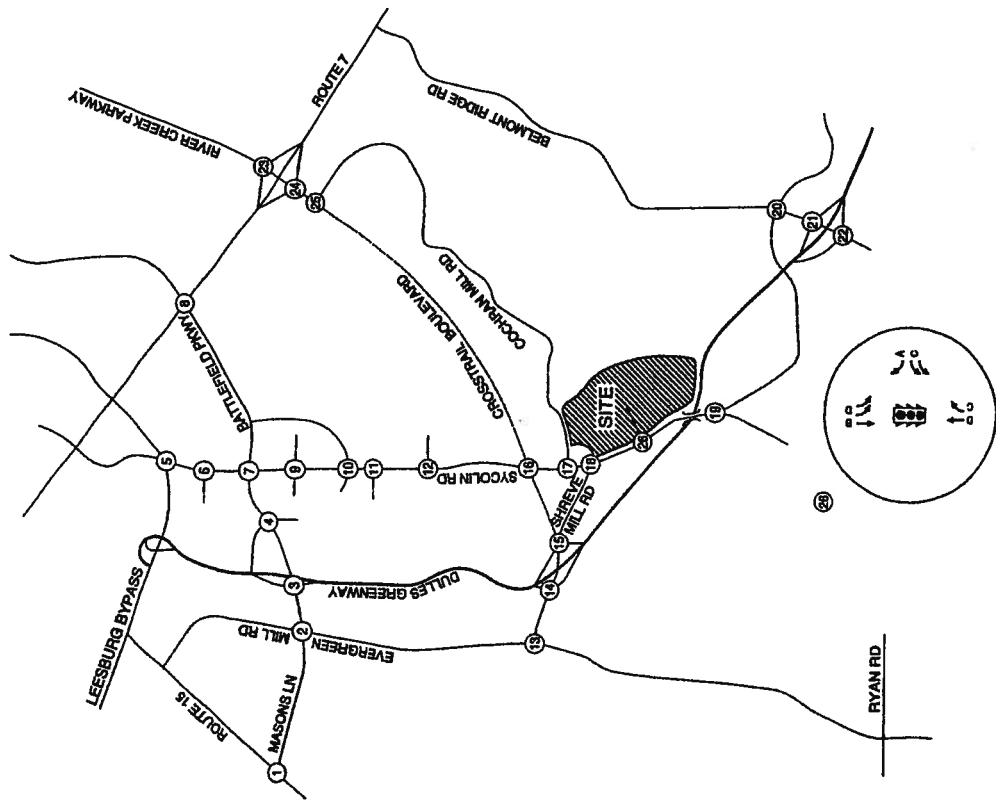
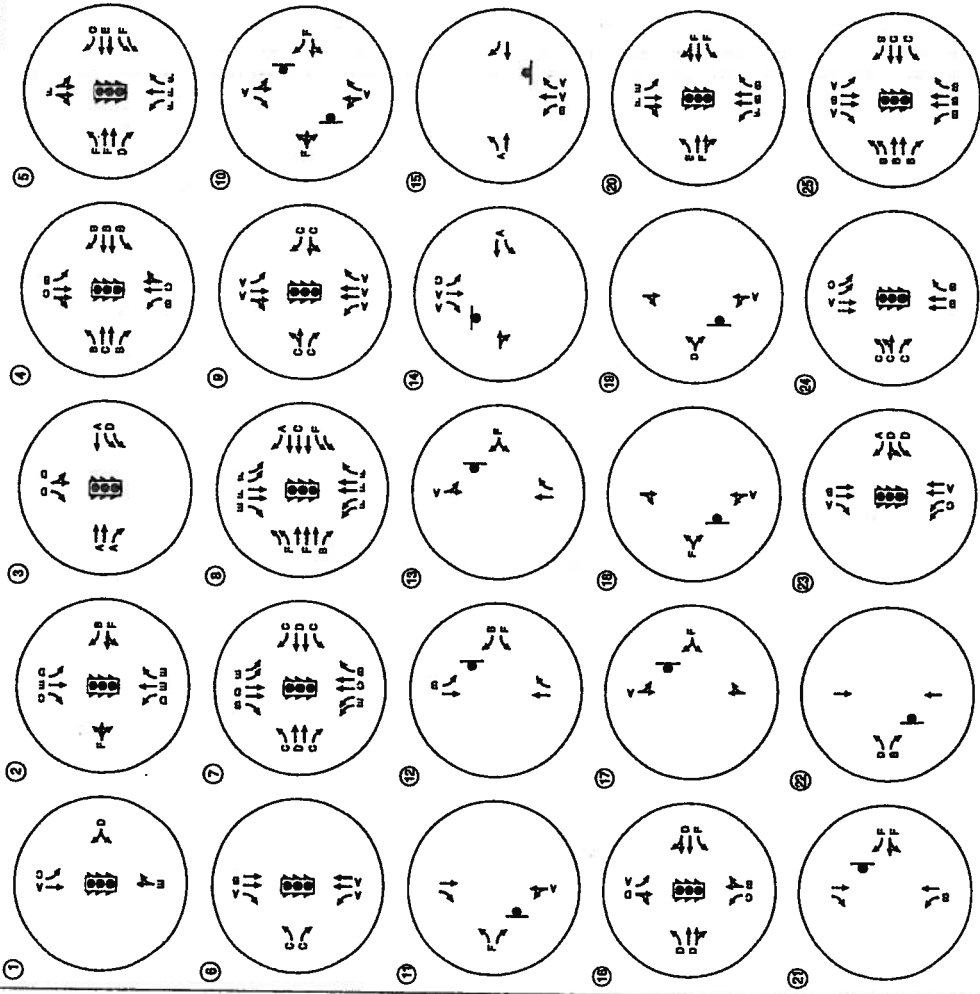
LEGEND **2003** = ADT

CM = CRITICAL MOVEMENT (UNSIGNALIZED)
LOS = INTERSECTION LEVEL OF SERVICE
(SIGNALIZED) CRITICAL MOVEMENT LEVEL
OF SERVICE (UNSIGNALIZED)
Dd = INTERSECTION AVERAGE CONTROL DELAY
(SIGNALIZED) CRITICAL MOVEMENT CONTROL
DELAY (UNSIGNALIZED)
V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

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2020 TOTAL LANE GROUP LEVEL OF SERVICE WITH CROSS TRAIL BOULEVARD
WEEKDAY AM PEAK HOUR
LOUDOUN COUNTY, VA



ATTACHMENT 58

2020 TOTAL LANE GROUP LEVEL OF SERVICE WITH CROSS TRAIL BOULEVARD
WEEKDAY PM PEAK HOUR
LOUDOUN COUNTY, VA

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Masons Ln & Route 15	Signalized	WB	WBLR		D	118	45.3	D	#570	44.5
		WB Approach			D		45.3	D		44.5
		NB	NBTR		E	#1232	68.4	D	591	39
		NB Approach			E		68.4	D		39
		SB	SBL	300	C	60	31.9	C	42	20.5
			SBT		A	104	3.2	C	523	22
		SB Approach			A		8.5	C		21.9
Masons Lane & Evergreen Mills Road	Signalized	Overall LOS			D		51	D		51
		EB	EBLTR		F	#1101	332.7	C	191	23.5
		EB Approach			F		332.7	C		23.5
		WB	WBLT		F	#1203	797.8	E	#721	58.8
			WBR	100	B	30	10.5	B	203	15.5
		WB Approach			F		715.7	D		41.1
		NB	NBL	100	D	49	39.3	D	139	43.8
			NBT		E	#549	63.5	F	#1174	297.2
			NBR	100	E	#513	69.3	F	#657	122.2
		NB Approach			E		65.5	F		205.2
		SB	SBL	100	D	#214	43.5	D	167	47.3
			SBT		E	#747	61	D	315	40.7
			SBR	100	C	21	32.1	C	36	33.4
Battlefield Parkway & Greenway EB On-Ramp	Signalized	SB Approach			E		55.6	D		42.2
		Overall LOS			F		292	F		292
		EB	EBT		A	166	10	A	117	5
			EBR	150	A	49	8.6	A	11	3.4
		EB Approach			A		9.6	A		4.9
		WB	WBL	150	D	97	37.7	D	18	45.7
			WBT		A	191	4.8	A	270	8.1
		WB Approach			B		12.9	A		9.1
Battlefield Parkway & Miller Drive	Signalized	NB Approach			A		0	A		0
		SB	SBLT		D	60	39	D	21	46.2
			SBR	150	D	48	37.3	D	16	44.7
		SB Approach			D		37.8	D		45.3
		Overall LOS			B		13.3	B		13.3
		EB	EBL	150	B	12	15.2	B	7	16.9
			EBT		C	222	21.1	C	212	25
			EBR	150	B	18	12.2	B	11	13.1
		EB Approach			C		20.2	C		24.4
		WB	WBL	150	B	35	11.5	B	32	13.8
			WBT		B	265	18.3	B	201	19.7
			WBR	150	B	17	10.3	A	16	9.6
		WB Approach			B		17.3	B		17.9
		NB	NBL	150	B	48	17.9	C	79	21.3
			NBTR		C	14	21.4	C	47	25.8
		NB Approach			B		19	C		23.4
		SB	SBL	150	B	23	18.7	B	112	18
			SBTR		C	12	22	C	24	22.8
		SB Approach			C		20.4	C		20.3
		Overall LOS			B		18.7	B		18.7

*The '#' indicates 95th percentile volume exceeds capacity, queue may be longer and the queue shown is the maximum after two cycles.

*The 'm' indicates that the volume for the 95th percentile queue is metered by upstream signal.

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020 (2 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Leesburg Bypass & Sycolin Road	Signalized	EB	EBL	550	F	#366	159.8	F	#569	273.5
			EBT		F	#2956	271.1	F	#2108	164.3
			EBR	700	D	312	37.7	C	90	30.9
		EB Approach			F		228.7	F		160.1
		WB	WBL	250	F	#352	139.9	F	#276	130.6
			WBT		E	1389	62.7	F	#2824	302.8
			WBR		C	49	26.9	C	137	30.5
		WB Approach			E		73.5	F		274.8
		NB	NBL		F	#591	182.1	F	#1782	884.7
			NBT		F	#922	345.9	F	#1448	650.8
			NBR	275	F	#840	122.9	F	#1150	222.4
		NB Approach			F		214.7	F		610.1
		SB	SBLTR		F	#964	425.4	F	#581	187.6
		SB Approach			F		425.4	F		187.6
		Overall LOS			F		201	F		201
Hope Parkway & Sycolin Road	Signalized	EB	EBL		C	113	26.3	C	77	29.1
			EBR		C	53	24.1	C	40	26.8
		EB Approach			C		25	C		27.8
		NB	NBL	225	A	13	6.2	A	36	3.7
			NBT		A	97	5	A	273	6.4
		NB Approach			A		5.1	A		6.3
		SB	SBT		B	325	12.4	A	135	9.6
			SBR	225	A	17	7.1	A	22	7.9
Battlefield Parkway & Sycolin Road	Signalized	SB Approach			B		12.1	A		9.3
		Overall LOS			B		11.5	B		11.5
		EB	EBL	350	C	143	32.8	E	#379	66.5
			EBT		D	210	41.6	D	271	45.4
			EBR	350	C	128	33.6	C	33	27.3
		EB Approach			D		37.6	D		50.6
		WB	WBL	375	C	195	30.4	D	96	40.4
			WBT		D	400	50.2	E	274	58.7
			WBR	375	C	44	29.1	D	188	41.7
		WB Approach			D		43.1	D		51.9
		NB	NBL	250	E	59	58.2	E	177	64.1
			NBT		C	193	32.7	E	#816	69
			NBR	250	B	23	19.6	C	96	22
		NB Approach			C		34.9	E		62.3
		SB	SBL	250	E	108	57.2	E	102	61.4
			SBT		D	560	43.7	C	225	34.3
			SBR	250	B	51	19.7	B	106	19.6
		SB Approach			D		41.2	D		35.6
		Overall LOS			D		40.2	D		40.2

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020 (3 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Route 7 & Battlefield Parkway	Signalized	EB	EBL	350	F	102	107	F	#200	112
			EBT		F	#2378	158	E	#1372	55.6
			EBR	350	B	52	11	B	118	17.4
		EB Approach			F		153.6	E		57.4
		WB	WBL	350	F	224	110.1	F	357	99.1
			WBT		C	828	27.1	F	#2625	198.1
			WBR	350	A	24	8	B	244	10.9
		WB Approach			C		33.6	F		173.8
		NB	NBL	350	F	96	98.7	F	94	98.5
			NBT		F	188	87.7	F	#573	312.1
			NBR	350	F	#940	171.9	E	523	73.8
		NB Approach			F		140.3	F		200.6
		SB	SBL	350	F	145	108.8	F	#237	110.1
			SBT		F	#440	128.3	F	238	87.4
			SBR	350	E	258	73.8	E	337	69.4
		SB Approach			F		112.3	F		89.3
		Overall LOS			F		108.6	F		108.6
Tolbert Lane & Sycolin Road	Signalized	EB	EBLT		C	7	32.1	C	5	31.9
			EBR	250	C	41	32.4	C	24	32
		EB Approach			C		32.4	C		32
		WB	WBLT		C	27	32.9	C	24	32.3
			WBR		C	22	32.1	C	15	31.9
		WB Approach			C		32.4	C		32.1
		NB	NBL	200	A	9	5.1	A	29	2.8
			NBT		A	72	3.9	A	405	9.5
			NBR	100	A	4	3.1	A	4	3
		NB Approach			A		4	A		8.8
		SB	SBL	200	A	2	3.2	A	2	6
			SBTR		A	350	9.2	A	104	7.3
		SB Approach			A		9.2	A		7.3
		Overall LOS			A		9.4	A		9.4
Tavistock Drive & Sycolin Road	Unsignalized	EB	EBLTR		F	85	226.5	F	Err	Err
		EB Approach			F		226.5	F		Err
		WB	WBLT		F	Err	Err	F	Err	Err
		WB Approach			F		Err	F		Err
		NB	NBLT		A	6	2.3	A	1	0.1
			NBR			0	0		0	0
		NB Approach					2.2			0.1
		SB	SBLT		A	1	1.2	A	9	4.3
			SBR			0	0		0	0
		SB Approach					1			4
		Overall LOS			F		624.8	F		624.8
Miller Drive & Sycolin Road	Unsignalized	EB	EBL		F	93	125.4	F	Err	Err
		EB Approach			F		125.4	F		Err
		NB	NBLT		A	21	7.1	A	3	0.2
		NB Approach					7.1			0.2
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
		SB Approach					0			0
		Overall LOS			F		5	F		5

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020 (4 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Loudoun Center Place & Sycolin Road	Unsignalized	WB	WBL		F	104	199.1	F	Err	Err
			WBR		B	22	12.7	F	571	563
		WB Approach			F		65.1	F		3060.8
		NB	NBT			0	0		0	0
			NBR			0	0		0	0
		NB Approach					0			0
		SB	SBL		B	19	10.2	D	63	26.7
			SBT			0	0		0	0
		SB Approach					1.5			6.5
		Overall LOS			B		7.6	B		7.6
Shreve Mill Road & Evergreen Mills Road	Unsignalized	WB	WBLR		F	119	89	F	299	176.4
		WB Approach			F		89	F		176.4
		NB	NBT			0	0		0	0
			NBR			0	0		0	0
		NB Approach					0			0
		SB	SBLT		A	15	4.3	A	5	1.8
		SB Approach					4.3			1.8
Shreve Mill Road & Greenway EB On-Ramp	Unsignalized	Overall LOS			D		7.5	D		7.5
		EB	EBTR			0	0		0	0
		EB Approach					0			0
		WB	WBL		A	11	8.4	A	4	7.7
			WBT			0	0		0	0
		WB Approach					5.2			1.8
		SB	SBL		C	14	17.7	B	3	13.6
Shreve Mill Road & Greenway WB On-Ramp	Unsignalized		SBT		A	0	0	A	0	0
			SBR		A	1	9	A	0	0
		SB Approach			C		16.7	B		13.6
		Overall LOS			A		3.7	A		3.7
		EB	EBL		A	0	7.7	A	0	7.8
			EBT			0	0		0	0
		EB Approach					0.1			0.1
Shreve Mill Road & Greenway WB On-Ramp	Unsignalized	WB	WBT			0	0		0	0
			WBR			0	0		0	0
		WB Approach					0			0
		NB	NBL		B	3	12.6	B	9	12
			NBT		A	0	0	A	0	0
			NBR		A	7	9.9	A	16	9.6
		NB Approach			B		10.6	B		10.2
Crosstrail Blvd & Sycolin Road	Signalized	Overall LOS			A		1.7	A		1.7
		EB	EBL	300	D	45	48.9	D	69	48.6
			EBTR		D	52	52.5	E	#105	60.2
		EB Approach			D		51.9	E		57.6
		WB	WBL	300	F	#337	113.6	D	101	50.7
			WBTR		D	88	47.9	D	55	53
		WB Approach			F		83.7	D		52.1
		NB	NBL	300	C	13	29	A	32	6.7
			NBTR		B	242	11.3	F	#1877	167.4
		NB Approach			B		12.3	F		158.2
Crosstrail Blvd & Sycolin Road	Signalized	SB	SBL	300	A	13	7.6	D	65	35.3
			SBTR		D	#1182	46.5	B	319	10.6
		SB Approach			D		45.6	B		13.7
		Overall LOS			D		46.1	D		46.1

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020 (5 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Cochran Mill Road & Sycollin Road	Unsignalized	WB	WBLR		F	70	1723.8	F	8	54.5
		WB Approach			F		1723.8	F		54.5
		NB	NBTR			0	0		0	0
		NB Approach					0			0
		SB	SBLT		A	0	0.5		0	0
		SB Approach					0.5			0
Shreve Mill Road & Sycollin Road	Unsignalized	Overall LOS			E		12	E		12
		EB	EBLR		F	283	525.4	F	59	67.8
		EB Approach			F		525.4	F		67.8
		NB	NBLT		A	15	8.4	A	10	9.4
		NB Approach					8.4			9.4
		SB	SBTR			0	0		0	0
Gulick Mill Road & Sycollin Road	Unsignalized	SB Approach					0			0
		Overall LOS			E		34.5	E		34.5
		EB	EBLR		D	16	32.4	F	10	54.8
		EB Approach			D		32.4	F		54.8
		NB	NBLT		A	0	0	A	2	0.7
		NB Approach					0			0.7
Sycollin Road & Belmont Ridge Road	Signalized	SB	SBTR			0	0		0	0
		SB Approach					0			0
		Overall LOS			B		0.6	B		0.6
		EB	EBL	275	E	119	67.1	E	#123	65.7
			EBTR		F	#586	122.2	E	491	75.4
		EB Approach			F		117.3	E		74.7
		WB	WBL	300	F	#236	135.2	E	#169	68.1
			WBTR		F	287	81.5	F	#626	88.6
		WB Approach			F		93.9	F		86.2
		NB	NBL	350	F	#1229	95.9	E	#728	71.4
			NBT		B	183	19.9	C	407	34
			NBR		B	23	14.3	C	27	20.6
Greenway WB On-Ramp & Belmont Ridge Road	Unsignalized	NB Approach			E		62.7	D		46.3
		SB	SBL	400	E	111	65.4	E	93	55.7
			SBTR		F	#638	102.5	F	528	87.2
		SB Approach			P		96.8	F		83.1
		Overall LOS			F		88.1	F		88.1
		WB	WBLT		F	8	77	F	108	1255.6
			WBR		F	512	186.5	F	1029	607.3
		WB Approach			F		185.2	F		639.5
		NB	NBL		B	4	10.9	C	10	15.7
			NBT			0	0		0	0
Greenway WB On-Ramp & Belmont Ridge Road	Unsignalized	NB Approach					0.4			0.6
		SB	SBT			0	0		0	0
			SBR			0	0		0	0
		SB Approach					0			0
		Overall LOS			C		35.7	C		35.7

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020 (6 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Greenway EB Off-Ramp & Belmont Ridge Road	Unsignalized	EB	EBL		D	14	31.4	F	12	56.2
			EBR		B	9	13	C	5	16.8
		EB Approach			C		19	D		32
		NB	NBT			0	0		0	0
		NB Approach					0			0
		SB	SBT			0	0		0	0
		SB Approach					0			0
Route 7 WB Ramps & Crosstrail Boulevard	Signalized	Overall LOS			C		1	C		1
		EB Approach			A		0	A		0
		WB	WBL	400	D	#213	52	C	#142	26.1
			WBLT		D	#214	52.5	C	#143	26.4
			WBR		A	0	0.2	A	0	0.7
		WB Approach			C		34	B		11
		NB	NBL	500	C	38	32.6	C	70	20.8
			NBT		A	2	0.9	A	47	6.2
		NB Approach			A		8.8	B		11.8
		SB	SBT		B	145	12.9	B	116	19.9
			SBR	500	A	20	5.2	A	12	5.7
		SB Approach			B		10.9	B		16.7
Route 7 EB Ramps & Crosstrail Boulevard	Signalized	Overall LOS			B		18.7	B		18.7
		EB	EBL	400	C	73	30.9	C	68	26.6
			EBLT		C	73	30.8	C	68	26.6
			EBR	400	C	45	28.2	C	53	25.5
		EB Approach			C		29.6	C		25.9
		WB Approach			A		0	A		0
		NB	NBT		B	53	12.5	B	147	13.9
			NBR	400	B	41	12.8	B	55	15
		NB Approach			B		12.7	B		14.4
		SB	SBL	500	C	m79	20	C	82	25.6
			SBT		A	m34	2.4	A	70	4.4
		SB Approach			B		10.1	B		11.3
		Overall LOS			B		14.1	B		14.1

Table 14 Summary of Peak Hour Levels of Service, 95th Percentile Back of Queue, and Delay for Each Lane Group by Intersection-Total Traffic with Crosstrail Boulevard 2020 (7 of 7)

Intersection Information					AM Peak Hour			PM Peak Hour		
Intersection	Traffic Control	Approach	Lane Group	Existing/ Proposed turn-lane lengths	LOS	Back of Queue (feet)	Delay (sec)	LOS	Back of Queue (feet)	Delay (sec)
Cochran Mill Road & Crosstrail Boulevard	Signalized	EB	EBL	350	B	61	19.7	C	159	22.4
			EBT		B	5	18.2	B	7	18.2
			EBR	500	B	9	18.1	B	9	18.2
		EB Approach			B		19.6	C		22.3
		WB	WBL	250	C	13	30.4	C	17	32.7
			WBT		C	4	25.6	C	11	31.8
			WBR	350	B	25	17.4	C	51	27.9
		WB Approach			B		18.5	C		28.5
		NB	NBL	200	B	8	16.6	B	10	17.3
			NBT		B	37	17.7	C	167	20.9
			NBR	150	B	9	17.1	B	11	17.9
		NB Approach			B		17.6	C		20.8
		SB	SBL	325	A	45	8.1	B	48	11.9
			SBT		B	120	12.6	B	67	15.1
			SBR	325	A	17	6.3	A	20	5.7
		SB Approach			B		10.9	B		10.7
		Overall LOS			B		14.1	B		14.1
Site-driveway & Sycolin Road	Signalized	WB	WBL		C	43	24	F	#410	111.9
			WBR		A	21	8.8	F	#974	95.5
		WB Approach			B		15.3	F		102.6
		NB	NBT		D	#356	46.2	F	#1014	98.2
			NBR	200	C	415	22.1	B	35	10.6
		NB Approach			C		30.3	F		80.1
		SB	SBL	200	D	#468	44.6	D	139	37.2
			SBT		B	378	11.9	A	103	5.8
		SB Approach			C		31.2	C		21.2
		Overall LOS			C		29.5	C		29.5

Off-site improvements identified under year 2020 total traffic conditions with the Crosstrail Boulevard extension are identical to those identified without the extension.

- A eastbound right turn lane with overlap phase are needed at the Sycolin Road/Belmont Ridge Parkway intersection.
- Sycolin Road is forecast to exceed 7000 Average Daily Traffic (ADT) north of the site due in part to site-generated traffic, and will need to be widened to four lanes per VDOT policy. The four lane section will need to continue for some distance south of the site driveway to accommodate dual left turns out of the site.

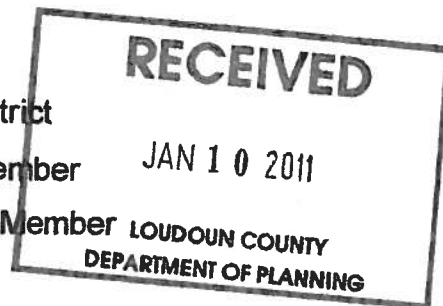
HORIZON YEAR 2030 ANALYSIS

Per the scoping requirements of this project, an analysis of future design year 2030 total traffic conditions was performed for planning purposes. The 2030 analysis is provided for the County staff to support long-term planning efforts. Year 2030 background traffic volumes were developed by applying a three-percent growth rate compounded annually on all roads except on Route 7 and Route 15, where a three-and-a-half-percent growth rate was used. The Crosstrail Boulevard extension was assumed to be constructed.



**COUNTY OF LOUDOUN
PARKS, RECREATION AND COMMUNITY SERVICES
REFERRAL MEMORANDUM**

To: Judi Birkitt, Project Manager, Planning Department (MSC #62)
From:  Mark A. Novak, Chief Park Planner, Facilities Planning and Development (MSC #78)
CC: Diane Ryburn, Director
Steve Torpy, Assistant Director
Su Webb, Chairman, PROS Board, Catoclin District
Robert C. Wright, PROS Board, Open Space Member
James E. O'Connor, PROS Board, Open Space Member
Date: January 3, 2011
Subject: **Stonewall Secure Business Park (3rdSubmission)**
ZMAP 2008-0017, SPEX 2008-0068, SPEX 2008-0069,
SPEX 2008-0070, SPEX 2010-0018, SPEX 2010-0034 &
CMPT 2010-0014



Election District: Catoclin **Sub Planning Area:** Leesburg
MCPI #: 193-14-0539, 193-29-6778, 193-39-3665, 193-38-4362, 194-49-8227,
194-48-6020, and 193-27-9018

BACKGROUND AND ANALYSIS:

The Properties are bounded to the north by Sycolin Creek and Cochran Mill Road (Route 6530, to the east by the Luck Stone quarries, to the south by the Dulles Greenway Route 267) and to the west by Sycolin Road (Route 643). The site is located in the Transition Policy Area within the Catoclin Election District and consists of approximately 294 total acres. The Properties are currently zoned TR-10 (Transition Residential -10) pursuant to the Revised 1993 Zoning Ordinance. Portions of the site are located within the Leesburg Airport Impact Overlay District, the Quarry Notification District and the Minor Floodplain.

In this application, the Applicant, Stonewall Creek LLC, proposes to develop secure business park to provide a large campus setting for high security uses and facilities creating an opportunity in Loudoun County for a new Federal Government Contracting Industry Center. The uses include approximately 6,811,303 square feet of industrial/office space to potential house users such as a government agency, governmental prime contractor, major subcontractor, governmental supplier, and/or government or non-government data center for the purposes of intelligence and information technology; research, development and testing; light manufacturing, component and system assembly; and data center processing and security.

To support this program, the Applicant seeks to rezone the Properties from TR-10 to PD-IP (Planned Development – Industrial Park) and PD-GI (Planned Development – Office Park) in accordance with the provisions of the Revised 1993 Zoning Ordinance. In addition, the Applicant is seeking Special Exceptions to allow office space that does not meet the criterion of Section 4-503(G), to allow a 0.60 FAR; water storage tank; and water treatment plant. The Applicant contends that the proposal will attract the types of companies that the Loudoun County Department of Economic Development is pursuing for the first Federal Government Contracting Industry Center in the County, generating a greater commercial tax base.

The Applicant sought these large, remotely-accessed parcels to utilize natural screening from topography and existing mature vegetation for additional security to the complex. The Applicant is proposing 2 gated and guarded entrances on Sycolin Road, with private internal streets. The Applicant is proposing redundant and backup utilities, and has also applied for a separate Special Exception and Commission Permit (SPEX 2009-0009 and CMPT 2009-0001) for their own power generation plant and transmission facility.

POLICY:

The subject site is governed under the policies outlined in the Revised General Plan, Revised 1993 Zoning Ordinance the Revised Countywide Transportation Plan (CTP), and the Bicycle and Pedestrian Mobility Master Plan (Bike/Ped Plan). The Properties are located within the Transition/Lower Sycolin Policy Area. The Planned Land Use Map adopted with the Revised General Plan identifies the subject site as planned for Transition Residential.

COMMENTS:

The Department of Parks, Recreation and Community Services (PRCS) have reviewed the applicant's responses dated December 27, 2010 to referral comments dated September 17, Draft Proffer Statement dated December 20, 2010 and revised ZMAP 2008-0017, SPEX 2010-0018, SPEX's 20010-0068, SPEX 2008-0069, SPEX 2008-0070 and CPMT 2010-0014

The following is a summary of the current status of the issues identified by the Department of Parks Recreation and Community Services, dated September 17, 2010.

Comment #1: No proffers were submitted with this application. Please provide proffers for review.

Applicant Response: *The Applicant will submit a draft Proffer Statement after the revised traffic study has been completed.*

Issue Status: In comment #2 responses, below. The Applicant is proposing to include a proffer for a cash contribution to be used within the Philip A. Bolen Memorial Park for the construction of trails. Staff would prefer to review the draft proffer statement as early as possible.

Applicant Response (12/20/10): *The draft proffer Statement is enclosed with this letter and includes a \$15,000,000, cash contribution for construction of a trail within Phillip A. Bolen Memorial Park.*

Issue Status: Acknowledge

Comment #2: PRCS notes that the subject properties are adjacent to parcels MCPI# 191-16-9866, 193-47-8662, and 193-48-6164, which has been designated as Philip A. Bolen Memorial Park and is currently under construction. The portions of these properties adjacent to Sycolin Creek have been designated for stream valley protection and public access to the stream channel.

PRCS is developing a system of interconnected linear parks along the County's Major Stream Valley Corridors. This is consistent with the Greenways and Trail Policies of the Revised General Plan, Policy 1 (p. 5-39): "Greenways include areas along rivers and streams that are often ideal for trails". Policy 4 (p. 5-40): "The County will seek through purchase, proffer, density transfer, donation or open-space easement, the preservation of greenways and the development of trails". Parks, Recreation and Community Services Policies, Policy 3 (p. 3-15), states that "The County encourages the contiguous development of regional linear parks, trail, and natural open space corridors to provide pedestrian links and preserve environmental and aesthetic resources".

PRCS respectfully requests that the Applicant proffer a commitment to the dedication of land for further development of linear parks, passive trails, and natural open space corridors in this area. A future trail system along Sycolin Creek and Goose Creek would link Bolen Park to the existing Potomac Heritage National Scenic Trail at Keep Loudoun Beautiful Park. PRCS typically requests dedication of the floodplain to the County within 6 months of rezoning approval.

Applicant Response: *The Applicant will include a proffer for a cash contribution to be used within the Philip A. Bolen Memorial Park for the construction of trails. A trail along Sycolin Creek would compromise the security of the Stonewall Secure Business Park.*

Issue Status: Staff understands the Applicants concerns on compromising the security of the proposed business park and is open to working with the Applicant on a proffer for a cash contribution to be used within the Philip A. Bolen Memorial Park for the construction of trails. Staffs suggest a meeting with the Applicant to further discuss.

Applicant Response (12/20/10): A meeting with Mark Novak and other staff occurred on October 21, 2101, and it was determined that a cash contribution for a trail in the Phillip A. Bolen Memorial Park would be satisfactory. As stated above, the draft Proffers includes a cash contribution.

Issue Status: Acknowledge

Comment #3: In conjunction with Comment 2, PRCS requests that the Applicant proffer a monetary commitment to the development of a canoe launch / trailhead along Sycolin Creek off of Cochran Mill Road, as proposed on the Philip A. Bolen Memorial Park Conceptual Master Plan by Lewis Scully Gionet, LLC, dated May 12, 2002. Staff is willing to discuss this potential opportunity in a future meeting with the Applicant.

Applicant Response: See response to comment 2, above

Issue Status: See response to Issue Status to comment 2, above.

Issue Statues (1/3/11): In the applicants response dated 12/20/11, the applicant is proffering (Draft Proffer Statement December 21, 2010, proffer IV.20) a cash contribution of \$15,000.000, for construction of a trail within Phillip A. Bolen Memorial Park. PRCS staff met with the Applicant and determined that a cash contribution for a trail in the Phillip A. Bolen Memorial Park would be satisfactory.

Comment #4: Staff requests more information about the potential transportation impacts of the project during and after construction, and how it may impact the adjacent park.

Applicant Response: The traffic study will be revised and data center uses do not generate significant amounts of traffic. A proffer to address construction traffic will be provided in the proffer statement that will be submitted in the near future.

Issue Status: Not resolved, no draft proffers to review.

Applicant Response: The revised Traffic Study is enclosed with this letter.

Issue Status: Acknowledge

Comment #5: The current Revised Countywide Transportation Plan (CTP) proposes Cochran Mill Road and Sycolin Road to be improved, widened, or realigned through the subject property. Please revise and/or explain this discrepancy.

Applicant Response: *The proposed alignment for Cochran Mill Road severely compromises the security of the Stonewall Secure Business Park. The 'traffic study will be revised and these issues will be discussed with staff in the Office of Transportation.*

Issue Status: Deferred to Office of Transportation.

Applicant Response: *This issue will be discussed with the Office of Transportation.*

Issue Status: Acknowledge

Comment #6: Staff notes that the subject properties are in close proximity to the Luck Stone Quarries. While the Applicant has stated that the business park makes a good buffer to the quarry uses, Staff is concerned about how the quarry and its rock-blasting may impact the proposed uses on the site.

Applicant Response: *Quarry uses and the impacts from the quarry operations will not impact the data center uses.*

Issue Status: Resolved.

Comment #7: PRCS requests more information on the noise (cooling towers) and light glare impacts to the surrounding natural environment that are typically associated with research and data centers.

Applicant Response: *All noise that is generated by the data center uses will be attenuated to meet the requirements of the Zoning Ordinance. Lighting will be directed downward in inward toward the site and will be shielded to prevent light trespass.*

Issue Status: Resolved.

Comment #8: Staff notes that the subject properties are in close proximity to the Leesburg Regional Airport. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to the airport (e.g., noise and light glare) will be mitigated.

Applicant Response: *The proposed data center uses will not impact the Leesburg Executive airport and the water storage facilities will be coordinated with the FAA during site plan review.*

Issue Status: Resolved.

Comment #9: It appears that the Concept Plan shows potential impacts to stream corridors, including major and minor floodplain. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to stream corridors will be mitigated.

Applicant Response: *Sycolin Creek will be protected by the Stream Valley Creek Buffer and the Rivers and Streams Corridor Overlay.*

Issue Status: Resolved.

Comment #10: It appears that the Concept Plan shows potential impacts to wetlands. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to wetlands will be mitigated.

Applicant Response: *All impacts to wetland will be coordinated with the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality.*

Issue Status: Resolved.

Comment #11: It appears that the Concept Plan shows potential impacts to very steep slopes. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to very steep slopes will be mitigated.

Applicant Response: *The very steep slopes areas will not be disturbed.*

Issue Status: Resolved.

Comment #12: Please revise Sheets 1, 2, 3, 5 and 6 of the Concept Plan to identify and label Philip A. Bolen Memorial Park.

Applicant Response: *As requested, the plan sheets have been revised to label Philip A. Bolen Memorial Park.*

Issue Status: Resolved

CONCLUSION:

PRCS has reviewed the Applicants responses and finds them satisfactory and would not be in objection to approval of this application as presented.

If you have any questions or concerns regarding these comments, please do not hesitate to contact me personally via phone at 703-737-8992, or via e-mail at mark.novak@loudoun.gov. I look forward to attending any meetings or work sessions to offer PRCS support, or to be notified of any further information regarding this project.



Environmental Health
Phone: 703 / 777-0234
Fax: 703 / 771-5023

Loudoun County Health Department

P.O. Box 7000
Leesburg VA 20177-7000



Community Health
Phone: 703 / 777-0236
Fax: 703 / 771-5393

RECEIVED

JAN 12 2011

4 January 2011

LOUDOUN COUNTY
DEPARTMENT OF PLANNING

MEMORANDUM TO: Judi Birkitt, Project Manager
Department of Building & Development, **MSC 62**

FROM: Matthew D. Tolley
Sr. Env. Health Specialist
Division of Environmental Health, **MSC 68**

SUBJECT: ZMAP 2008-0017 & SPEX 2008-0068-70 & SPEX
2010-0018 & 0034 & CMPT 2010-0014; Stonewall
Secure Business Park (third referral)
LCTM: 60/41, 39 & 61/13 (PIN 193-27-9018, 194-
48-6020 & 194-49-8227)

The Health Department recommends approval of this application. The proposal will be served by public water and sewer. There appear to be no abandoned houses or existing septic field or wells on the subject parcels. The plat reviewed was prepared by Gordon & Associates and was revised 15 December 2010.

Attachments Yes ___ No X

If further information or clarification on the above project is required, please contact Matt Tolley at 771-5248.

MDT/JEL/mt
c:subdvgd.ref

September 28, 2010

Ms. Judi Birkitt
Department of Planning
1 Harrison Street, S.E.
P. O. Box 7000
Leesburg, Virginia 20177-7000

Re: **ZMAP-2008-0017, SPEX-2008-0068, SPEX-2008-0070, SPEX-2010-0018**
Stonewall Secure Business Park

Dear Ms. Birkitt:

Loudoun Water has reviewed the referenced Zoning Map Amendment Petition and offers no objection to its approval.

Should offsite easements be required to extend public water and/or sanitary sewer to this site, the applicant shall be responsible for acquiring such easements and dedicating them to the Authority at no cost to the County or to Loudoun Water. Public water and sanitary sewer service would be contingent upon the developer's compliance with Loudoun Water's Statement of Policy; Rates, Rules and Regulations; and Design Standards.

Should you have any questions, please advise.

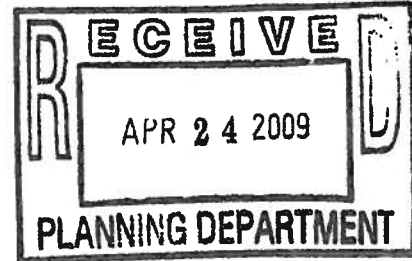
Sincerely,



Julie Atwell
Engineering Administrative Specialist

COUNTY OF LOUDOUN
Department of Economic Development

JOINT REFERRAL



DATE: April 18, 2009

TO: Judi Birkitt, Project Manager
Land Use Review Division, Planning

FROM: Robyn Bailey, Manager Business Infrastructure *RB*

SUBJECT: Stonewall Secure Business Park
ZMAP 2008-0017, SPEX 2008-0068, SPEX 2008-0069,
SPEX 2008-0070

Description

The applicant proposes the following:

Zoning Map Amendment (ZMAP) to rezone 231.78 acres from TR-10 and PD-IP and 65.52 acres from TR-10 to PD-GI for the development of a secure business park.

Special Exception (SPEX) to allow office that does not meet the criterion of Section 4-503(G), to allow a 0.60 FAR, water storage tank, and water treatment plant.

The site is north of Route 267, east of Route 643, south of Sycolin Creek and west of Route 652.

Evaluation

The Department of Economic Development's core mission is to support the formation, expansion, retention, and location of appropriate industries and businesses in Loudoun and the region. Successful economic development increases the community's capacity to generate wealth; one result of this is a local government with the sustained fiscal strength necessary to develop a high quality community while keeping tax rates competitive.

In FY 2009, the Loudoun County Board of Supervisors supported an Economic Development strategy focusing on cluster development. Staff was dedicated to Loudoun's clusters with the greatest growth potential: information communication technology (ICT) and federal government contracting (FGC), including aerospace.

The Stonewall application proposes the creation of a secured business park, targeting federal government contractors as well as government agencies. Loudoun has successfully recruited numerous government contractors over the last two years including: Raytheon, CACI, Accenture, BAE Systems, Harris, and MVM/Silver Eagle

Group. While Loudoun has been able to accommodate these contractors with existing space, the need for space options is critical for on-going recruiting of these businesses.

New government regulations have led to the need for increased security for both government agencies and government contractors. The new regulations vary based on the work being done, and all of the details have not been provided to the DED; however, we continue to try to understand these regulations. Some of the basic increased security regulations include: greater setbacks, separation of parking from buildings, secured access points, and limited public access.

The Stonewall application provides unique security barriers including: the Greenway, operational and expanding quarry, floodplain and the newly acquired site by Loudoun Water. The applicant is encouraged to use these existing barriers to provide security as well as ensure that buffers are adequate to provide protection to potential users on the site as well as adjacent properties.

It is also important to note that the protection of the quarry as well as the future Loudoun Water facility and will benefit from being adjacent to a secured business park. Residential developments generally cause conflicts with quarries; and Loudoun Water is currently located in a business corridor.

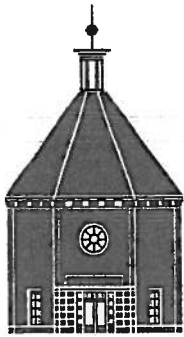
A secluded highly secured business park, proposed by Stonewall, will likely attract users that are not viable on Loudoun's existing commercial properties, such as highly secured data center facilities and offices.

Loudoun has been fortunate to attract numerous data centers that are highly profitable from a tax perspective. Data centers are generally attracted to sites offering less visibility and recognition, such as Ashburn Corporate Center and other stand alone sites tucked behind office buildings. Existing Loudoun data centers have continued to expand; however, residential neighbors expressed concern with the data center in Ashburn Corporate Center; thus requiring the developer to try to elevate the resident's concerns. The proposed Stonewall site will be protected from residential concerns.

The applicant is requesting PD-IP zoning with increased density of 0.60. The need for flexibility must be balanced with the need for the County to mitigate the increased impact. The applicant is encouraged to provide developable envelopes on the site and also a chart of potential uses with minimum and maximum square footages. Since data centers are classified as office, the applicant may want to consider specifying between data center and traditional office. Traditional office impact is substantially different than data centers. The DED supports flexibility on the site.

Conclusion

The applicant is requested to increase the buffer around the site by increasing setbacks from the site perimeter. The applicant is also encouraged to provide developable envelopes on the site and also a chart of potential uses with minimum and maximum square footages.



The Town of
**Leesburg,
Virginia**

RECEIVED

FEB 24 2011

LOUDOUN COUNTY
DEPARTMENT OF PLANNING

JOHN WELLS
Town Manager

25 West Market Street ■ P.O. Box 88 ■ 20178 ■ 703-771-2700 ■ Fax: 703-771-2727 ■ www.leesburgva.gov

February 23, 2011

Judi Birkitt, Project Manager
Loudoun County Department of Planning
1 Harrison Street, SE
P.O. Box 7000
Leesburg, VA 20177

Re: Referral requests for a Rezoning and five Special Exceptions and one Commission Permit for Stonewall Secure Business Park, in the general vicinity of Sycolin Road and Cochran Mill Road (3rd submission). Requests are for the following:

- ZMAP 2008-0017, to allow a Rezoning from TR-10 and JLMA- 20 to PD-IP
- SPEX 2008-0068, to allow Office Uses and a 0.6 FAR
- SPEX 2008-0069, to allow a 120 ft. tall Water Tank
- SPEX 2008-0070, to allow a Water Treatment Plant
- SPEX 2010-0018, to allow an Indoor Firearm Range
- SPEX 2010-034, to allow a Utility Substation
- CMPT 2010-0014, to allow a Utility Substation

Dear Ms. Birkitt:

We are in receipt of the referral request for the third submission of the above referenced project, and we are pleased to have the opportunity to provide you with comments about the applications from the Town's perspective.

Town Council, at its meeting on February 22, 2011, has directed me to provide the following comments. The Town believes that this third submittal application raises issues that need to be addressed, as indicated below.

Land Use:

1. **Transition Policy Area** - Leesburg's planning has relied on development to be in accordance with the Revised General Plan's Transition Policy Area designation for the area south of the Town. The type of use, intensity of use (FAR), provision of public water and sewer, and structures 120 feet tall seem far from the "more rural character" (RGP, p. 8-5)

envisioned for the Lower Sycolin Subarea of the Transition Policy Area. However, the proposed facility may help to realize several economic development policies. It would appear reasonable to consider the applications if the applicant can make an adequate case that this is a suitable site and that a suitable site in the Suburban Policy Area does not exist, perhaps even if the impacts of the proposal somewhat exceed those outlined in the Revised General Plan. The materials of the third submission do not make that case.

2. **Greenbelt** - The Revised General Plan calls for a greenbelt around the Town (RGP, p. 9-12). Specifically, Leesburg policy 4.a identifies the 100-year floodplain of Sycolin and Goose creeks, provided the county's River and stream Corridor Overlay District also apply, as the greenbelt (but not Bolen Park, as mentioned in the response to second submittal comments). In the northern most portion of the site, the concept plan (sheet 4) apparently proposes a portion of the Scenic Creek Valley Buffer for land disturbance (that is, an area not designated as tree save). (In addition, the location of the Scenic Creek Valley Buffer relative to the major floodplain appears to be in error.) The Town requests that the greenbelt be accommodated in any development of the site.
3. **Layout of development areas** - The concept plan in the third submission includes areas designated for buildings and parking. This should be augmented with a delineation of limits of disturbance, and more specific information (building footprint, total area, height, use; and number of parking spaces) within each building/parking area would also be useful. It should be possible to provide this information as ranges or some other format so that it does not unduly constrain the applicant's flexibility in developing the site.

Traffic and Transportation:

1. **Transportation, abutting roads** - The third submission does not address improvements to the road system abutting the site. The widening of Sycolin Road and Cochran Mill Road, and the relocation of Cochran Mill Road onto the site should be addressed, in accordance with the Town Plan and the Revised General Plan.
2. **Transportation, abutting bicycle/pedestrian facilities** - The third submission does not address improvements to the bicycle/pedestrian facilities abutting the site. People using these facilities should have less of an impact than automobiles on the security of the site, despite the response to second submission comments, where the applicant claims that pedestrians walking along public roads adjacent to the site would present a security risk.
3. **Transportation, off-site impacts** - Based on the impacts outlined in the applicant's transportation impact analysis, it is recommended that the applicant provide a four lane section of Sycolin Road from the site entrance to the four lane section (currently under construction) just south of Tolbert Lane. The applicant's proffers should address provision of these facilities in accordance with the Town Plan and the Revised General Plan.

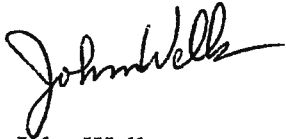
Judi Birkitt, Project Manager

February 23, 2011

Page 3

Thank you for the opportunity to provide these comments, and we look forward to addressing the third submittal. If you require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "John Wells". The signature is fluid and cursive, with the first name "John" and last name "Wells" clearly distinguishable.

John Wells

Town Manager

cc: Leesburg Town Council
Leesburg Planning Commission
Susan Berry Hill, Director of Planning & Zoning



L. Preston Bryant, Jr.
Secretary of Natural Resources

Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

217 Governor Street
Richmond, Virginia 23219-2010
(804) 786-7951 FAX (804) 371-2674

April 15, 2009

Judi Birkitt
County of Loudoun
1 Harrison Street, S.E.
Leesburg, VA 20175

Re: Stonewall Secure Business Park

Dear Ms. Birkitt:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

DCR reiterates its' comments from September 18, 2008, "According to the information currently in our files, several rare plants, which are typically associated with prairie vegetation and inhabit semi-open diabase glades in Virginia, may occur at this location if suitable habitat is present. Diabase glades are characterized by historically fire-dominated grassland vegetation on relatively nutrient-rich soils underlain by Triassic bedrock. Diabase flatrock, a hard, dark-colored volcanic rock, is found primarily in northern Virginia counties and is located within the geologic formation known as the Triassic Basin. Where the bedrock is exposed, a distinctive community type of drought-tolerant plants occurs. Diabase flatrocks are extremely rare natural communities that are threatened by activities such as quarrying and road construction (Rawinski, 1995). In Northern Virginia, diabase supports occurrences of several global and state rare plant species: Earleaf foxglove (*Agalinis auriculata*, G3/S1/NL/NL), Blue-hearts (*Buchnera americana*, G5/S1S2/NL/NL), Purple milkweed (*Asclepias purpurascens*, G5/S2/NL/NL), Downy phlox (*Phlox pilosa*, G5T5/S2/NL/NL), Stiff goldenrod (*Oligoneuron rigidum* var. *rigidum*, G5T5/S2/NL/NL), and Marsh hedgenettle (*Stachys pilosa* var. *arenicola*, G5T4/S1/NL/NL).

Due to the potential for this site to support populations of natural heritage resources, DCR recommends an inventory for the resource in the study area. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.

DCR-Division of Natural Heritage biologists are qualified and available to conduct inventories for rare, threatened, and endangered species. Please contact J. Christopher Ludwig, Natural Heritage Inventory Manager, at (804) 371-6206 to discuss arrangements for field work. A list of other individuals who are qualified to conduct inventories may be obtained from the USFWS."

Our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

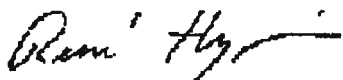
Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Shirl Dressler at (804) 367-6913.

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Rene' Hypes", with a stylized flourish at the end.

S. Rene' Hypes
Project Review Coordinator

February 17, 2011

MEMORANDUM

TO: Alex Faghri

FROM: Arun Raj

CC: Jim Turner

SUBJECT: RUID # 13017, Plan# ZMAP 2008-0017, Stonewall Secure Business Park

We have completed our review of the traffic Impact Study for the referenced developments. As a result of this review, we have found the following items that need to be addressed.

Summary of the Key Findings

The development site is located east of Route 643 (Sycolin Road) and south of Route 653 (Cochran Mill Road) in the Catoctin Election District of Loudoun County, Virginia. The proposed development will consist of a total of 4,500,000 square-feet of data center and 500,000 square-feet of office space. The project is anticipated to be constructed in three phases: Phase 1 (20 percent complete) in year 2013, Phase 2 (60 percent complete) in year 2015, and full build out in year 2020. Phase 1 is anticipated to be constructed by year 2013, and will consist of approximately 900,000 square-feet of data center and 100,000 square-feet of office space. Phase 1 of the development is estimated to generate approximately 2,610 net new weekday daily trips, 390 weekday a.m. (335 in, 55 out) and 425 weekday p.m. (100 in, 325 out). Phase 2 is anticipated to be constructed by year 2015, and will consist of an additional 1,800,000 square-feet of data center and 200,000 square-feet of office space. Phase 2 is estimated to generate approximately 4,330 net new weekday daily trips, 655 weekday a.m. (575 in, 80 out) and 690 weekday p.m. (185 in, 505 out) peak hour trips. Overall, the combined Phase 1 and 2 impact will account for a total of approximately 6,940 net new weekday daily trips, 1,045 weekday a.m. (910 in, 135 out), and 1,115 weekday p.m. (285 in, 830 out) peak hour trips. Full build out (Phase 3) of the Stonewall Secure Business Park is anticipated to be completed by year 2020 and will add an additional 1,800,000 square-feet of data center and 200,000 square feet of office. Phase 3 is estimated to generate approximately 4,060 additional net new weekday daily trips, 625 weekday a.m. (545 in, 80 out) and 695 weekday p.m. (185 in, 510 out) peak hour trips. Overall, full build out of the Stonewall Secure Business Park will generate a total of approximately 11,270 net new weekday daily trips, 1,045 weekday a.m. (910 in, 135 out), and 1,115 weekday p.m. (285 in, 830 out) peak hour trips. Site access will be provided via a single signalized access point on Sycolin Road for all phases of the development.

Accuracy of the Traffic Impact Analysis

The following are the comments for the traffic impact analysis.

1. Loudoun County Scoping document shows total proposed development of 5,000,000 SF of data center but the report is based on a total of 4,500,000 square-feet of data center and 500,000 square-feet of office space. Office space development is not stated in the scoping document. 500,000 SF of office space generate much more trips compared to similar development of data center. Also, please explain why the proposed development does not trigger for Chap 527 Traffic Impact Analysis regulations?
2. An intersection PHF value of 0.96 is used instead of 0.91 for int # 20 (Sycolin Rd at Belmont Ridge Rd) existing AM analysis and 0.94 instead of 0.98 for int # 21 (Greenway WB on-ramp at Belmont Ridge Rd) existing AM analysis. Also, for all existing intersection capacity analysis, intersection PHF value is used. We recommend using PHF based on lane group for existing cases.
3. Introduction and executive summary should clearly mention full proposed development (a total of 4,500,000 square-feet of data center and 500,000 square-feet of office space).
4. Table 2, page 23; LOS provided here does not match with the corresponding figures (e.g. Intersection of Masons Ln at Route 15 shows LOS E for both AM and PM peak hours but Figure 5 and 6 shows LOS C and F respectively for AM and PM peak hours. Similarly for intersection of Masons Ln at Evergreen Mills Road, the overall LOS is F for both AM and PM but Figure 5 and 6 shows F and D respectively for AM and PM peak hours). Please verify all intersections and correct as necessary.
5. The queuing analysis results are shown in the tables but no description is provided of the queuing results. Please provide the description of the queue analysis. A couple of the 95th percentile backs of queue exceed the existing/proposed turn-lane lengths (e.g. table 9, page 91; Sycolin Rd at Belmont Ridge Rd NBL. Table 11, page 102; Masons Ln at Evergreen Mills Rd NBL and SBL. Table 14, page 132; Sycolin Rd at Belmont Ridge Rd NBL etc.). How the issue of turn bays is addressed that exceeds the existing/proposed limits? The location where the queue exceeds the available storage needs to be addressed.
6. Figure 31 traffic volume does not make sense compared to Figure 21 (e.g. Figure 31, int # 26; westbound left and right turn volume increase from 170 to 405 and 180 to 445 respectively, northbound left from 55 to 155 and southbound left from 50 to 135. similarly for int # 7 northbound volume increases from 160 to 225 and for int # 20 it increases from 220 to 420, 240 to 340 and 75 to 140 for eastbound right, northbound left and eastbound left turning traffic). Please check and correct accordingly for other intersections as well. Make sure to correct related scenario for future cases as necessary.
7. Figure 33, int # 26; LOS for northbound through, westbound right, southbound left, and southbound through should be D, C, E and B respectively. Please check and correct accordingly.

8. Page 92, table 9; a couple of PM peak hour LOS entries are missing for last 2 intersections. Also, at the last intersection (Site-driveway at Sycolin Rd) PM peak hour LOS entries are not correct. Please check and correct accordingly.
9. Figure 42, int # 26; Westbound Right LOS should be B.
10. Page 56; Typo, First paragraph shows 2105 background conditions instead of 2015.
11. Figure 43, int # 26; Northbound Through, Westbound Right, and Southbound Left LOS should be D, D, and D respectively.
12. Figure 45, int # 26; northbound right turning volume should be 80 not 8.
13. Figure 49; the LOS provided on this figure does not correspond to the related analysis. It looks like this Figure is same as Figure 48. Please check and provide the correct LOS figure.

Comments on the Recommended Improvements

1. Adding a signal and adding lanes is recommended as mitigation measures at couple of locations for background conditions as well as for proposed conditions but no capacity analysis is conducted for the proposed mitigations. A capacity analysis will be needed for all proposed mitigation measures to show that appropriate mitigations measure address the deficiencies.

Additional VDOT Recommendations/Comments

1. Although a signal is intuitively warranted at couple of intersection locations based on the analysis for projected traffic; we recommend that a signal warrant study be re-examined no earlier than one year prior to build out of the project. Signal warrant study needs to be provided in a separate booklet and alternatives other than a traffic signal should be provided in the study. As of July 1, 2009, all warrant studies should be signed and sealed by a professional engineer registered in the Commonwealth of Virginia.

Conclusions

In general, based on our comments, the Traffic Impact Analysis will need to be revised and a final version submitted. Please call if you have any questions.

I, John A. Andrews, II, Agent do hereby state that I am an

Applicant

☒ Applicant's Authorized Agent listed in Section C.1. below

in Application Number(s): ZMAP 2008-0017 & SPEN 2008-

and that to the best of my knowledge and belief, the following information is true:

C. DISCLOSURES: REAL PARTIES IN INTEREST AND LAND USE PROCEEDINGS

1. REAL PARTIES IN INTEREST

The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS** and **LESSEES** of the land described in the application* and if any of the forgoing is a **TRUSTEE**** each **BENEFICIARY** of such trust, and all **ATTORNEYS**, and **REAL ESTATE BROKERS**, and all AGENTS of any of the foregoing.

All relationships to the persons or entities listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together (ex. Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner, etc.) For a multiple parcel application, list the Parcel Identification Number (PIN) of the parcel(s) for each owner(s).

PIN	NAME (First, M.I., Last)	ADDRESS (Street, City, State, Zip Code)	RELATIONSHIP (Listed in bold above)
	Stonewall Creek LLC	P.O. Box 660 Hamilton, VA 20159	Applicant/Contract Purchaser
193-39-3665	John A. Andrews, Trustee f/b/o John A. Andrews II, Nadine P. Andrews, Jessica E. Andrews, John A. Andrews III, Laura E. Andrews, Annamarie C. Andrews	P.O. Box 660 Hamilton, VA 20159	Title Owner
193-27-9018	Sycolin Corner LLC	101 N. King Street Leesburg, VA 20176-2820	Title Owner
193-29-6778 194-48-6020 194-49-8227	LTI Limited Partnership	c/o Capitol Properties P.O. Box 740 Warrenton, VA 20188-0740	Title Owner
193-38-4362 193-49-0539	Evergreen Loudoun-One Limited Partnership	8511 Rapley Preserve Circle Potomac, MD 20854-5475	Title Owner
	William H. Gordon Associates, Inc.	4501 Daly Drive Chantilly, Virginia 22021	Engineers/Agent
	Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.	1 E. Market Street, 3 rd Floor Leesburg, VA 20176	Attorneys/Planners/ Agent
	M.J. Wells & Associates, Inc.	1420 Spring Hill Road, #600 McLean, VA 22102	Transportation Consultant/Agent
	Emery & Garrett Groundwater, Inc.	P.O. Box 1578 Meredith, NH 03253	Environmental Consultant/Agent

	Zimar and Associates, Inc.	10105-C Residency Road Manassas, Virginia 20110	Arboriculture/Forestry Consultant/Agent
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* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

** In the case of a TRUSTEE, list Name of Trustee, name of Trust, if applicable, and name of each beneficiary.

Check if applicable:

___ There are additional Real Parties in Interest. See Attachment to Paragraph C-1.

LISTING OF INDIVIDUAL AGENTS

1. **Stonewall Creek LLC**
Jordan (nmi) Dimoff
John A. Andrews, II
2. **Sycolin Corner LLC**
William C. Mims
3. **LTI Limited Partnership**
Stephen J. Garchik
4. **Evergreen Loudoun-One Limited Partnership**
Mary Grace Day
Wayne T. Day
Seth A. Robbins
5. **Walsh, Colucci, Lubeley, Emrich & Walsh, PC**
J. Randall Minchew, Esq.
William J. Keefe
Michael G. Romeo
Christine E. Gleckner
Andrew A. Painter
Kimberlee Welsh Cummings
6. **William H. Gordon Associates, Inc.**
Robert W. Woodruff
7. **M.J. Wells & Associates, Inc.**
Christopher R. Kabatt
8. **Emery & Garrett Groundwater, Inc.**
James M. Emery
9. **Zimar and Associates, Inc.**
Donald E. Zimar
Robert M. Gordon

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, **and if such corporation is an owner of the subject land**, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

Stonewall Creek LLC, P.O. Box 660, Hamilton, VA 20159

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
The John A. Andrews II Revocable Trust 2007 f/b/o John A. Andrews II, Nadine P. Andrews, Jessica E. Andrews, John A. Andrews III, Laura E. Andrews, Annamarie C. Andrews	John Aubrey Andrews
Leonard (nmi) Mitchel	Jordan (nmi) Dimoff
Ann (nmi) Kerr	Andrews Community Investment Corporation

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

Andrews Community Investment Corporation, 39100 East Colonial Highway, Hamilton, VA 20159

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
John A. Andrews, II	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)
John A. Andrews, II, President	

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

Sycolin Corner LLC, 101 N. King Street, Leesburg, VA 20176

Description of Corporation:

☒ There are 100 or fewer shareholders and all shareholders are listed below.

☐ There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☐ There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

☐ There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
William C. Mims, Manager/Member	
George (nmi) Whitlow, Member	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

Emery & Garrett Groundwater, Inc, P.O. Box 1578, Meredith, NH 03253

Description of Corporation:

☒ There are 100 or fewer shareholders and all shareholders are listed below.

☐ There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☐ There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

☐ There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
James M. Emery	
Peter (nmi) Garrett	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

Zimar and Associates, Inc., 10105-C Residency Road, Manassas, Virginia 20110

Description of Corporation:

☒ There are 100 or fewer shareholders and all shareholders are listed below.

☐ There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☐ There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

☐ There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
Donald E. Zimar	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

Walsh, Colucci, Lubeley, Emrich & Walsh, P.C., 1 E. Market Street, 3rd Floor, Leesburg, Virginia 20176

Description of Corporation:

☒ There are 100 or fewer shareholders and all shareholders are listed below.

☐ There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☐ There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

☐ There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
David J. Bomgardner	E. Andrew Burcher
Thomas J. Colucci	Peter M. Dolan, Jr.
Jay du Von	Jerry K. Emrich
William A. Fogarty	John H. Foote
H. Mark Goetzman	Bryan H. Guidash
Michael D. Lubeley	J. Randall Minchew
M. Catharine Puskar	John E. Rinaldi
Lynne J. Strobel	Garth M. Wainman
Nan E. Walsh	Martin D. Walsh

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

M. J. Wells & Associates, Inc., 1420 Spring Hill Road, Suite 600, McLean, VA 22102

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

SHAREHOLDER NAME <i>(First, M.I., Last)</i>	SHAREHOLDER NAME <i>(First, M.I., Last)</i>
M.J. Wells & Associates, Inc. Employee Stock Ownership Trust (ESOT)	

Names of Officers and Directors:

NAME <i>(First, M.I., Last)</i>	Title <i>(e.g. President, Treasurer)</i>

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

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Name and Address of Corporation: (complete name, street address, city, state, zip code)

William H. Gordon Associates, Inc., 4501 Daly Drive, Chantilly, Virginia 22021

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
William H. Gordon, R. Steven Hulsey, Joseph W. McClellan, Eugene C. Dorn, Robert W. Woodruff, Paula M. Fleckenstein, Robert W. Walker, Wayne E. Foard, Mark A. Dyck, Laura F. Miller, Kevin D. Nelson, Roger E. Harris, Stanley D. Heiser, Brian P. Fletcher, J. Scott Peterson, Erik S. Spencer, Louise Zwicker, William E. Junda	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, and if such corporation is an owner of the subject land, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

Capitol Properties, Inc., P.O. Box 740, Warrenton, VA 20188

Description of Corporation:

☒ *There are 100 or fewer shareholders and all shareholders are listed below.*

☐ *There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.*

☐ *There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.*

☐ *There are more than 500 shareholders and stock is traded on a national or local stock exchange.*

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
Stephen J. Garchik	
JL Trust f/b/o Steven Snider	
Estate of Stephen L. Athey	
Potomac Trust f/b/o Steven Snider, Lawrence Snider, Judy Snider Cohen	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)
Stephen J. Garchik, President	Steven S. Snider, Assistant Secretary
Robert E. Clayton, CFO/Treasurer	

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

2. CORPORATION INFORMATION (see also Instructions, Paragraph B.3 above)

The following constitutes a listing of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 100 or fewer shareholders, a listing of all of the shareholders, and if such corporation is an owner of the subject land, all **OFFICERS** and **DIRECTORS** of such corporation. (Include sole proprietorships, limited liability companies and real estate investment trusts).

Name and Address of Corporation: (complete name, street address, city, state, zip code)

Loudoun-One Investments, Inc., 8511 Rapley Preserve Circle, Potomac, MD 20854

Description of Corporation:

☒ There are 100 or fewer shareholders and all shareholders are listed below.

☐ There are more than 100 shareholders, and all shareholders owning 10% or more of any class of stock issued by said corporation are listed below.

☐ There are more than 100 shareholders but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

☐ There are more than 500 shareholders and stock is traded on a national or local stock exchange.

Names of Shareholders:

SHAREHOLDER NAME (First, M.I., Last)	SHAREHOLDER NAME (First, M.I., Last)
Wayne T. Day	

Names of Officers and Directors:

NAME (First, M.I., Last)	Title (e.g. President, Treasurer)

Check if applicable:

☐ There is additional Corporation Information. See Attachment to Paragraph C-2.

3. PARTNERSHIP INFORMATION

The following constitutes a listing of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in the affidavit.

Partnership name and address: (complete name, street address, city, state, zip)

LTI Limited Partnership, c/o Capitol Properties, Inc., P.O. Box 740, Warrenton, VA 20188

☐ (check if applicable) The above-listed partnership has no limited partners.

Names and titles of the Partners:

<i>NAME</i> <i>(First, M.I., Last)</i>	<i>Title</i> <i>(e.g. General Partner, Limited Partner, etc)</i>
Capitol Properties, Inc., General Partner	Jerome Snider, Limited Partner
Capitol Properties, Inc., Limited Partner	Judy Cohen, Limited Partner
David Cohn, Limited Partner	Lawrence Snider, Limited Partner
David Spannbauer, Limited Partner	Michael Ochsman, Limited Partner
Estate of Ralph Boccarosse, Limited Partner	Sandy R. Garchik, Limited Partner
Estate of Stephen L. Athey, Limited Partner	Steve Snider, Limited Partner
Gerhard Eck Testamentary Trust f/b/o Gerhard Eck, Limited Partner	Usama Misleh, Limited Partner
Frank Tucker, Limited Partner	
Garchik Universal Limited Partnership, Limited Partner	

Check if applicable:

☐ Additional Partnership information attached. See Attachment to Paragraph C-3.

3. PARTNERSHIP INFORMATION

The following constitutes a listing of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in the affidavit.

Partnership name and address: (complete name, street address, city, state, zip)

Garchik Universal Limited Partnership, c/o Capitol Properties, Inc., P.O. Box 740, Warrenton, VA 20188

☐ (check if applicable) The above-listed partnership has no limited partners.

Names and titles of the Partners:

<i>NAME</i> (First, M.I., Last)	<i>Title</i> (e.g. General Partner, Limited Partner, etc)
Sandy R. Garchik, General & Limited Partner	

Check if applicable:

☐ Additional Partnership information attached. See Attachment to Paragraph C-3.

3. PARTNERSHIP INFORMATION

The following constitutes a listing of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in the affidavit.

Partnership name and address: (complete name, street address, city, state, zip)

Evergreen Loudoun-One Limited Partnership, 8511 Rapley Preserve Circle, Potomac, MD 20854

☐ (check if applicable) The above-listed partnership has no limited partners.

Names and titles of the Partners:

<i>NAME</i> <i>(First, M.I., Last)</i>	<i>Title</i> <i>(e.g. General Partner, Limited Partner, etc)</i>
Loudoun-One Investments, Inc., General & Limited Partner	

Check if applicable:

☐ Additional Partnership information attached. See Attachment to Paragraph C-3.

4. ADDITIONAL INFORMATION

- a. One of the following options must be checked:

☐ In addition to the names listed in paragraphs C. 1, 2, and 3 above, the following is a listing of any and all other individuals who own in the aggregate (directly as a shareholder, partner, or beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE of the land:

☒ Other than the names listed in C. 1, 2 and 3 above, no individual owns in the aggregate (directly as a shareholder, partner, or beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE of the land:

Check if applicable:

☐ Additional information attached. See Attachment to Paragraph C-4(a).

- b. That no member of the Loudoun County Board of Supervisors, Planning Commission, Board of Zoning Appeals or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or though an interest in a partnership owning such land, or as beneficiary of a trust owning such land.

EXCEPT AS FOLLOWS: (If none, so state).

None

Check if applicable:

☐ Additional information attached. See Attachment to Paragraph C-4(b).

- c. That within the twelve-month period prior to the public hearing for this application, no member of the Loudoun County Board of Supervisors, Board of Zoning Appeals, or Planning Commission or any member of his immediate household, either individually, or by way of partnership in which any of them is a partner, employee, agent or attorney, or through a partner of any of them, or through a corporation (as defined in the Instructions at Paragraph B.3) in which any of them is an officer, director, employee, agent or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has or has had any business or financial relationship (other than any ordinary customer or depositor relationship with a retail establishment, public utility, or bank), including receipt of any gift or donation having a value of \$100 or more, singularly or in the aggregate, with or from any of those persons or entities listed above.

EXCEPT AS FOLLOWS: (If none, so state).

None

Check if applicable:

☐ Additional information attached. See Attachment to Paragraph C-4(c).

D. COMPLETENESS

That the information contained in this affidavit is complete, that all partnerships, corporations (as defined in Instructions, Paragraph B.3), and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, OR LESSEE of the land have been listed and broken down, and that prior to each hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including any gifts or business or financial relationships of the type described in Section C above, that arise or occur on or after the date of this Application.


WITNESS the following signature:


check one: ☐ Applicant or ☒ Applicant's Authorized Agent

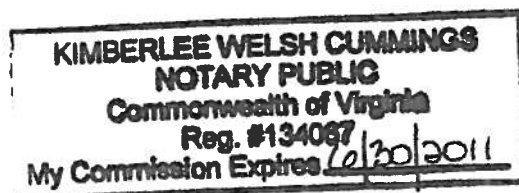
John A. Andrews, II, agent

(Type or print first name, middle initial and last name and title of signee)

Subscribed and sworn before me this 13th day of November 2008, in
the State/Commonwealth of Virginia, in the County/City of Fauquier


Notary Public

My Commission Expires: 10/30/2011



**STATEMENT OF JUSTIFICATION
STONEWALL SECURE BUSINESS PARK
Zoning Map Amendment Petition
Zoning Ordinance Modifications
Special Exception & Commission Permit Applications
ZMAP 2008-0017, SPEX 2008-0068, SPEX 2008-0069, SPEX 2008-0070, SPEX 2010-0018
& CMPT 2010-_____
August 13, 2010
Revised December 20, 2010**

RECEIVED

DEC 22 2010

LOUDOUN COUNTY
DEPARTMENT OF PLANNING

I. INTRODUCTION

Stonewall Creek, LLC, the Applicant is proposing to rezone approximately 193 acres from the Transition Residential - 10 ("TR-10") zoning district to the Planned Development - Industrial Park ("PD-IP") zoning district and special exception approval for a water treatment plant and water storage tank, a utility substation, transmission, indoor fire arm range, office uses (that do not meet the requirements of Zoning Ordinance Section 4-503(G)) and an increase in the allowable floor area ratio for office uses to .60 ("FAR") and commission permit approval for the utility substation, transmission, all for the development of the Stonewall Secure Business Park. The parcels that are subject to the rezoning include Loudoun County Tax Map 60, Parcel 39 (MCPI 194-48-6020) and Loudoun County Tax Map 61, Parcel 13 (MCPI 194-49-8227) consisting of 44.70 acres of 59.94 acres, 94.88 acres and 53.44 acres of 53.54 acres both parcels owned by LTI Limited Partnership and Loudoun County Tax Map 60, Parcel 41 (MCPI 193-27-9018) consisting of 94.88 acres and owned by Sycolin Corner, LLC collectively the "Subject Property".

The Subject Property is located east of Route 643 (Sycolin Road) and south of Route 653 (Cochran Mill Road) in the Catoctin Election District of Loudoun County, Virginia. Sycolin Creek borders the Subject Property to the north and the property north of Sycolin Creek is zoned JLMA - 20 and contains scattered residential uses along Cochran Mill Road and on the north side of Cochran Mill Road is the Philip A. Bolen Memorial Park. Property to the north east was recently rezoned to PD-GI with a special exception approval for the Hybrid Energy Park, property to the southeast is currently zoned TR-10 and proposed to be rezoned to MR-HI for the Loudoun Water Treatment Facility. There are several homes along Sycolin Road west of the Subject Property and these properties are also zoned TR-10. The Dulles Greenway borders the Subject Property to the south. Two (approximately) 125 foot high major electrical power lines and towers within a 250 foot wide easement and two interstate gas transmission lines within a 30 foot wide easement transverse the Subject Property in a north/south direction on the western portion of the Subject Property. The Subject Property is forested with a combination of evergreen and deciduous areas.

II. PROPOSAL

The Applicant is proposing to rezone approximately 193 acres from the TR-10 zoning district to the PD-IP zoning district and requesting special exception approval to increase the allowable floor area ratio ("FAR") for office uses to a maximum of .60 FAR. In addition, to the

increase in FAR, the Applicant is requesting special exception approval for a water treatment plant and water storage tank, a utility substation, transmission (pursuant to Section 5-616), indoor fire arm range, and office uses (which do not meet the criteria contained in Zoning Ordinance Section 4-503(G)). The Applicant is also requesting Commission Permit approval for the utility substation, transmission.

Stonewall Secure Business Park will provide a large campus setting for high security uses and facilities creating an opportunity in Loudoun County for a new Federal Government Contracting Industry Cluster¹. High security uses are unique and may include the following: Sensitive compartmented information facility², Government and private sector research and development facility, Government and private sector remote facility³, Secure government training and testing facility, Government or government contractor regional emergency operations center, Secure data centers and sensitive government contractors, Intelligence and/or information technology related analysis and implementation, Non-destructive research and development, Light manufacturing (component or system assembly), Data center processing and security, Security providers, and Security training and testing facilities. The Stonewall Secure Business Park will provide the secure environment, required facilities, utilities, infrastructure, appropriate location and land area to support a Federal Government Contracting Industry Cluster.

Loudoun County Department of Economic Development's presentation titled "A World Class Choice for Data Centers" states that "Access to multiple lit fiber networks, the availability of power and the specific location" are vital key ingredients for successful data centers. The Metropolitan Area Exchange East ("MAE East") lies in Loudoun County, and is the source through which thousands of Internet Service Providers exchange internet traffic between their networks. Data centers positioned close to MAE East have a better ability to deliver content throughout the world at a lower cost of internet bandwidth. Stonewall Secure Business Park's strategic location near the Hybrid Energy Park, natural gas lines, lit fiber optic infrastructure, fiber optic infrastructure corridors and non-public accesses make this site a prime location for uses within this desired Cluster.

¹ Loudoun County Department of Economic Development ("DED") defines an Industry Cluster as linked industries and related entities providing specialized suppliers, specialized infrastructure, competitors or complimentary products/technologies that are geographically co-located. The DED recently created and staffed a new Industry Cluster marketing initiative for Federal Government Contracting ("FGC") to attract defense contractors and government agencies to Loudoun County.

² Sensitive Compartmented Information Facility (SCIF)/Record Storage which is an accredited facility where government or non-government classified information is required to be handled in a secure controlled compound or building.

³ Government and Private Sector Remote Facility. Facilities identified as critical infrastructure that are owned, operated, or leased by the government and private sector. Such facilities include telecommunications, electrical power systems, finance, emergency services, and continuity of government. Data centers provide remote storage provisions for sensitive data.

The Issues for Consideration for rezoning and special exception applications contained in Sections 6-1211(E) and 6-1310 of the Zoning Ordinance are addressed in the Attachment.

In the aftermath of 9-11, there has been an emphasis on securing private and public facilities through the development of large campus settings that provide standoff distance (distance between a barrier and a protected building), controlled security and flexibility. The proposed Stonewall Secure Business Park will be a secure, self-contained and managed business park surrounded by natural and manmade features which makes it suitable for secure government and private sector users. The Park will not be accessible to the public and no public uses are proposed due to the secure environment. The required Security Measures are described below:

A. Security Measures.

The location, size, and topography of the proposed site make it ideal for a high-level security cluster (Industry Cluster, see footnote 1). Many of the exterior security standards mandated by the Department of Defense (DOD), General Services Administration (GSA), and the Department of Homeland Security (DHS) can be met by utilizing Crime Prevention Through Environmental Design (CPTED) (a multi-disciplinary approach to deterring criminal behavior through environmental design in conjunction with traditional physical security measures). The proposed site can capitalize on the site's natural defensibility. Significant security requirements include the following:

1. Standoff Distance.

Standoff is the distance between a structure and a physical barrier designed to protect it. Secured standoff is the use of a hardened barrier to prevent vehicles of a certain size and speed from breaking through the standoff perimeter⁴. The site's large area provides ample standoff, defense in depth, and reclusiveness that is suitable for a low profile user. The land area is sufficient to meet DOD or GSA minimum standoff requirements of 50 feet for a user from offsite threats as well as separation between users to reduce risks from internal roads and parking. There is sufficient area to maintain vegetation and ravines or to develop natural barriers. Berms and stormwater management elements meet the needs of manufactured barriers such as fencing and anti-ram obstacles (bollards, boulders, etc.). The topography and existing easements for the gas lines and power lines provide an opportunity for line of sight corridors that reinforces a controlled perimeter.

2. Perimeter Security.

⁴ "The Site Security Design Guide" U.S. General Services Administration, Public Buildings Service, June 2007.

The location and topography of the proposed site provide conditions that contribute to its natural defensibility. Natural barriers, the variation in topography and vegetation restrict line of sight and unauthorized entry. Limited road accessibility and surrounding land uses enhance the perimeter security by limiting unauthorized foot and vehicular traffic in the area. Perimeter security options include, but not limited to: stormwater management, berms, shrubs, landscaping and plantings, fencing, water features and bollards. Site access will be controlled by a guard house and other features such as retractable bollards and barrier arms. Perimeter barriers are key countermeasures for site security to effectively separate unauthorized vehicles.

3. Layers of Security.

The site is ideal for layers of security through site design and layout. Additional layers of security will be tailored and designed for each user within the Park. Layers of security provide increased detection and response. Integration of manufactured and natural obstacles provides necessary deterrents in an attractive and non-intrusive manner.

4. Redundancy.

Continuity of operations, uninterrupted power system by multiple sources and resiliency are crucial to a secure business park. Infrastructure and utility services to the site provides redundancy and operational capability. Availability of both on-site gas and electric power provide redundancy for sources of power, and landline and fiber networks provide redundancy for communications. Public utilities will serve the site and redundancy will be provided with on-site storage of water and water treatment facilities in the event public water is contaminated. The Hybrid Energy Park electric power generation will provide power for the grid and may also provide power for the data centers and other uses within the Stonewall Secure Business Park. If power is not available, then generators will provide the necessary power to keep the data centers and other uses running on-site. The on-site water treatment plant and water storage tank will provide potable water if the public water is not available or contaminated.

5. Integrated Site Security Design (ISSD)

Integrated Site Security and Design is a detailed security planning process that specifically correlates CPTED principles with physical security and site design considerations. ISSD utilizes layer methodology to the site layout

while maximizing operations and security. Environmental integration of the site's land area and topography are beneficial in the ISSD process.

III. COMPREHENSIVE PLAN

The Subject Property is located within the Transition Policy Area and the Lower Sycolin Creek Subarea as specified in the Loudoun County's Revised General Plan (RGP). The Transition Policy Area serves as a visual and spatial transition between the Suburban and Rural Policy Areas and envisioned that it will provide some unique development opportunities (emphasis added). The non-residential component of the Transition Policy Area will be comprised of compatible uses that represent an appropriate transition from suburban to rural land uses. The proposed Stonewall Secure Business Park and the recently approved Hybrid Energy Park are unique developments that provide a compatible transition from suburban to rural land uses while protecting the Luck Stone Quarry from residential development.

Development of the Stonewall Secure Business Park supports the RGP General Policies, as follows:

Policy 1: protect drinking water resources of Lower Sycolin subarea. Stormwater management and Best Management Practices will be incorporated into the site design thereby protecting drinking water resources.

Policy 2: integrate elements of the Green Infrastructure – Tree Preservation. Green Infrastructure will be integrated into the design of Stonewall Secure Business Park and provides security enhancements around the perimeter of the site, within the site, around the floodplain and stream valley of Sycolin Creek.

Policy 7: protect the extractive industry Luck Stone quarries. The Subject Property is proposed as PD-IP which is compatible with the Luck Stone quarry. The proposed uses in the Stonewall Secure Business Park are complimentary and compatible with the operations of a quarry and protect the quarry from residential encroachment.

Lower Sycolin and Middle Goose Subareas

Luck Stone Quarry will be protected from encroaching residential development with the Stonewall Secure Business Park and the recently approved Hybrid Energy Park. Also, the creation of a buffer and voluntary open space are consistent with the River Stream Corridor Overlay District (RSCOD) policies which is a priority in this Subarea.

Community Design Policies

Policy 15: encourage the development of non-residential uses that provide a transition from suburban to rural. The proposed Stonewall Secure Business Park non-residential uses provide a transition from suburban to rural.

Policy 26: protect the Luck Stone Quarry in the Lower Sycolin Subarea from incompatible uses by ensuring that encroaching new development does not hinder the quarry operation. Stonewall Secure Business Park will be compatible to the Luck Stone Quarry and will not hinder the quarry operations.

Economic Development Policies

Policy 1: Loudoun seeks and promotes a diverse economic base in multitude of industries that it is not entirely dependent upon any single employer or employment sector. Stonewall Secure Business Park will diversify the economic base and it will not be dependent upon a single employer or employment sector.

Policy 4: The County recognizes that economic policy and land use policy must be coordinated. The County seeks to implement the economic goals as adopted and subsequently amended by the Board of Supervisors in Loudoun County's Economic Development Plan and Growth Strategy within the framework provided by the Comprehensive Plan. The proposed land uses will address the growing demand in Loudoun County for secure data center sites and combined with the positive economic impacts of Stonewall Secure Business Park further the goals and policies of the RGP.

The proposed location for the Stonewall Secure Business Park is appropriate adjacent to the Hybrid Energy Park which can provide an adequate source of electricity for the operation of the data center uses. Data center uses are also appropriate at this location with the existing fiber optic network that connects to the Metropolitan Area Ethernet East ("MAE East"). MAE East is the eastern branch of the MCI/Worldcomm Internet Exchange Point for connecting internet service providers and it spreads across the east coast of the United States, with locations in Vienna, Reston and Ashburn, Virginia; New York, New York; and Miami, Florida.

Stonewall Secure Business Park is compatible with the planned land uses in the Urban Growth Areas north of the Park specified in the Leesburg Town Plan. Community Office/Light Industrial land uses are planned for the area north of Sycolin Creek. Community Office uses includes corporate headquarters and emerging technologies facilities at a maximum floor area ratio of .60⁵. Objective 5 of the Leesburg Town Plan is to protect the Leesburg Executive Airport from incompatible land uses that are noise sensitive, such as residences.

⁵ Leesburg Town Plan, November 12, 2008, pp. 52-53.

The land use recommendations in the Urban Growth Area of the Town of Leesburg Plan are "the basis for a joint planning effort with Loudoun County".⁶ The proposed Stonewall Secure Business Park is in substantial conformance with the policies and objectives of the Leesburg Town Plan and apposite with the policies and objectives of the Revised General Plan.

IV. TRANSPORTATION

Access to the Stonewall Secure Business Park will be from Sycolin Road with a guard house and secured access; another secondary emergency use access will be provided from Gant Lane with a guard house and secured access. All of the roads within the Business Park will be private and will be privately maintained due to the secure nature of the Park. With the predominance of data center uses, vehicle trips will be much less than compared with office uses.

The "Transportation Impact Analysis Stonewall Secure Business Park Loudoun County, Virginia" dated December 2010, prepared by Kittelson & Associates, Inc., Executive Summary states "Based on the results of the transportation impact analysis, the proposed development will affect the transportation system to varying degrees during the phased build-out of the full project. Phase 1 of the development is not anticipated to trigger any off-site improvements, while off-site improvements have been identified at the Phase 2 (60 percent complete in 2015) and full build-out (year 2020) stages."

V. ZONING MODIFICATIONS REQUESTS

1. Section 4-502 Size and Location

Requirement: PD-IP districts shall be located in areas served by one or more major arterial or collector roads, by public water and sewer, and consistent with locations identified in the Comprehensive Plan for industrial use. When mapped, the district shall be no less than twenty (20) acres in size. Incremental and contiguous additions of a minimum of one (1) acres to an existing PD-IP zoning district shall be allowed. Incremental additions must demonstrate their relationship and compatibility with the previously approved district to which it is being added.

Proposal and Justification: The proposed Stonewall Secure Business Park is located in an area that is served by a major collector road (Sycolin Road) and is also in the Loudoun Water service area which will provide public water and sewer. Two interstate gas transmission lines within a 30 foot wide easement and two 125 foot high major electrical power lines and towers within a 250 foot wide easement transverse the Stonewall Secure Business Park making it appropriate for industrial uses.

⁶ Ibid. p. 48a

The Subject Property is located within the Transition Policy Area and the Lower Sycolin Creek Subarea as specified in the Loudoun County's Revised General Plan (RGP). The Transition Policy Area serves as a visual and spatial transition between the Suburban and Rural Policy Areas and envisioned that it will provide some unique development opportunities (emphasis added). The non-residential component of the Transition Policy Area will be comprised of compatible uses that represent an appropriate transition from suburban to rural land uses. The proposed Stonewall Secure Business Park and the recently approved Hybrid Energy Park are unique developments that provide a compatible transition from suburban to rural land uses while protecting the Luck Stone Quarry from residential development. Furthermore, with 50 percent open space in the Stonewall Secure Business Park it will provide a spatial and visual transition from the more industrial uses to the east and the existing residential uses to the west.

2. Section 4-506(B) Building Height

Requirement: 45 feet maximum provided that a building may be erected to a maximum height of 100 feet if it is set back from streets or from lot lines that do not constitute boundaries of districts with lower maximum height restrictions, in addition to each of the required minimum yard dimensions, a distance of not less than one (1) one foot for each one (1) foot of height that it exceeds the 45-foot height limit.

Proposal and Justification: Proposing a maximum height of 100 feet without the additional setback only in the areas as shown on the Concept Plan, generally adjacent to the Dulles Greenway (Route 267), MR-HI, PD-GI and other non-residential zoning districts. The Dulles Greenway width provides for the additional setback and additional setbacks do not serve a public purpose adjacent to the Loudoun Water Treatment Facility or the Hybrid Energy Park. The Concept Plan has been annotated with the appropriate locations for the 100 foot building heights. These locations were carefully chosen to minimize the visual impacts from the Dulles Greenway and the existing residential uses.

The full setback will be provided when the maximum building height exceeds 45 feet when adjacent to TR-10 and JLMA-20 or other districts that permit residential uses.

3. Section 4-507(C) Screening and Buffering

Requirement: Landscaping, buffering, and screening shall be used to screen outdoor storage, areas for collection of refuse, loading areas, and parking from streets and agricultural and residential uses.

Proposal and Justification: Proposing the requirement applies to public streets, since the intent is to provide screening and buffering of outdoor storage, areas for the collection of refuse, loading and parking from adjacent uses. The Stonewall Secure Business Park will be served by private roadways and access will be controlled by a secured entrance with guard house. Tree Save Areas have been added to the site which will provide screening and buffering and where there is no existing vegetation or trees, the buffer areas will be enhanced to screen and buffer these areas from public streets outside of the Business Park and adjacent agricultural and residential uses. Screening and buffering within the Stonewall Secure Business Park would compromise security. The Stonewall Secure Business Park will not be subdivided and will be served by private streets to provide a secure site for high security uses.

4. Section 4-507(J) and Outdoor Storage and On-Site Parking of Business Vehicles

Requirement: Parking of two-axle vehicles such as automobiles, pick-up trucks, and/or service vans utilized in connection with a permitted use.

Proposal and Justification: Proposing to allow parking of larger vehicles that exceed two-axes that are required for data center operations or as an accessory to the primary use. Data center equipment may be provided on trailers that exceed two-axes and are critical to the operations of the data center uses.

VI. SUMMARY

The proposed PD-IP zoning district classifications and the predominant development data center uses in the Stonewall Secure Business Park are consistent with the Comprehensive Plan. The Subject Property is located within the Transition Policy Area and the Lower Sycolin Creek and Middle Goose Subarea as specified in the Loudoun County's Revised General Plan (RGP). The Transition Policy Area serves as a visual and spatial transition between the Suburban and Rural Policy Areas and envisioned that it will provide unique development opportunities (emphasis added). The non-residential component of the Transition Policy Area will be comprised of compatible uses that represent an appropriate transition from suburban to rural land uses. The Luck Stone quarry which borders the Subject Property to the northeast will be protected from residential development by the Stonewall Secure Business Park. The proposed Stonewall Secure Business Park will fulfill the needs for a Federal Government Contracting Industry Cluster and provide Loudoun County with a significant increase in tax revenues while providing a location for uses that require high security.

For the reasons stated above, the Applicant respectfully requests a recommendation of approval from Staff and the Planning Commission and approval by the Board of Supervisors of the Stonewall Secure Business Park.

Stonewall Secure Business Park

ZMAP 2008-0017

SPEX 2008-0068, SPEX 2008-0069, SPEX 2008-0070, SPEX 2010-0018

CMPT 2010-_____

Statement of Justification

Page 10 of 10

ATTACHMENT

**STATEMENT OF JUSTIFICATION
STONEWALL SECURE BUSINESS PARK
ZMAP 2008-0017, SPEX 2008-0068, SPEX 2008-0069, SPEX 2008-0070 & SPEX
2010-0018 & CMPT 2010-_____
Zoning Map Amendment Petition and Special Exception Application
Issues for Consideration**

Section 6-1211(E) of the Revised 1993 Loudoun County Zoning Ordinance states: "If the application is for reclassification of property to a different zoning district classification on the Zoning Map, . . . The Planning Commission shall give reasonable consideration to the following matters..."

- (1) **Whether the proposed zoning district classification is consistent with the Comprehensive Plan.**

The proposed PD-IP zoning district classification and the development of the Stonewall Secure Business Park are consistent with the Comprehensive Plan. The Subject Property is located within the Transition Policy Area and the Lower Sycolin Creek Subarea as specified in the Loudoun County's Revised General Plan (RGP). The Transition Policy Area serves as a visual and spatial transition between the Suburban and Rural Policy Areas and envisioned that it will provide some unique development opportunities (emphasis added). The non-residential component of the Transition Policy Area will be comprised of compatible uses that represent an appropriate transition from suburban to rural land uses. The Luck Stone quarry expansion proposed to be rezoned to MR-HI that borders the Subject Property to the east will be protected from residential development by the Stonewall Secure Business Park and the Hybrid Energy Park. The Stonewall Secure Business Park will provide a transition between the industrial uses of the Hybrid Energy Park and the Loudoun Water Treatment facility and the existing residential uses on the east side of Sycolin Road. The proposed PD-IP zoning district permits office uses and the Stonewall Secure Business Park will be predominantly developed with data center uses which are compatible with the residential uses to the west.

- (2) **Whether there are any changed or changing conditions in the area affected that make the proposed rezoning appropriate.**

The proposed rezoning to PD-IP for the Stonewall Secure Business Park is appropriate and compatible with the changing conditions of the adjacent properties to the east. The recently approved Hybrid Energy Park, the expansion and proposed rezoning of the Luck Stone Quarry properties and the proposed Loudoun Water water treatment plant to the east of the Subject Property have changed the land use conditions of the area and make the proposed rezoning appropriate.

Demands for data centers have exponentially grown in the past few years. Loudoun County Department of Economic Development's presentation titled "A World Class Choice for Data Centers" states that "Access to multiple lit fiber networks, the availability of power and the specific location" are vital key ingredients for successful data centers. The Metropolitan Area Exchange East ("MAE East") lies in Loudoun County, and is the source through which thousands of Internet Service Providers exchange internet traffic between their networks. Data centers positioned close to MAE East have a better ability to deliver content throughout the world at a lower cost of internet bandwidth. Stonewall Secure Business Park's strategic location near the Hybrid Energy Park, natural gas lines, lit fiber optic infrastructure, fiber optic infrastructure corridors and non-public accesses make this site a prime location for uses within this desired Cluster.

- (3) Whether the range of uses in the proposed zoning district classification are compatible with the uses permitted on other property in the immediate vicinity.**

The range of uses in the PD-IP zoning district are compatible with the uses in the Hybrid Energy Park, quarries and water treatment facilities. However, the Stonewall Secure Business Park will be predominantly developed with data center uses, which are also compatible, if mitigated, with the existing residential uses in the immediate vicinity. The other special exception uses will be contained in buildings or located in areas not immediately adjacent to residential uses. The uses in the Stonewall Secure Business Park will provide a transition between the industrial uses to the east and the existing residential uses to the west.

- (4) Whether adequate utility, sewer and water, transportation, school and other facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned.**

Public water and sewer are available from Loudoun Water. There are existing overhead power lines, and underground gas lines on the Subject Property. The Hybrid Energy Park may provide electricity to power the data center uses in the Stonewall Secure Business Park. Transportation improvements will be made to the site's access to serve the employees of the Stonewall Secure Business Park. Additional transportation improvements or cash contributions will be made to mitigate the impacts of the development of the Stonewall Secure Business Park. Since the proposed development does not contain residential uses, there will be no impact on public schools.

- (5) The effect of the proposed rezoning on the County's ground water supply.**
Stormwater management and best management practices will be incorporated into the site design which will maintain the quality of the ground water supply

- (6) **The effect of uses allowed by the proposed rezoning on the structural capacity of the soils.**

The proposed data center uses and special exception uses will be designed to be consistent with the structural capacity of the soils.

- (7) **The impact that the uses that would be permitted if the property were rezoned will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity and whether the proposed rezoning uses sufficient measures to mitigate the impact of through construction traffic on existing neighborhoods and school areas.**

The proposed uses will have minimal impacts on the volume of vehicular traffic. Data center uses generate minimal vehicular trips and will not have a major impact on safety in the vicinity. Appropriate and sufficient measures to mitigate the impact of the construction traffic on the existing residential uses will be determined during the processing of the site plan application.

The proffers will provide for transportation improvements and cash contributions to mitigate the development and full build-out of the Stonewall Secure Business Park.

- (8) **Whether a reasonably viable economic use of the subject property exists under the current zoning.**

The Subject Property is zoned TR-10 which permits predominantly residential uses which are not economically viable, compatible or desired uses due to the proximity of the Luck Stone properties and quarry uses, the proximity to the Hybrid Energy Park, and the high voltage transmission lines and natural gas transmission lines. The Subject Property is also within the Airport Impact Overlay District and partially within the Quarry Notification Overlay District (that will be expanded when the Luck Stone applications for the quarry expansion are approved). Residential uses would have greater impacts on the roads, County services and public schools.

The proposed Stonewall Secure Business Park will provide the County with significant tax revenues and also attract additional businesses to the County.

- (9) **The effect of the proposed rezoning on the environment or natural features, wildlife habitat, vegetation, water quality and air quality.**

Proposed with the Stonewall Secure Business Park are a River Stream Corridor Overlay District (RSCOD) and the stream valley buffer along Sycolin Creek and floodplain area within the Subject Property. The wetland area disturbance will be minimized and will be in compliance with the procedures of the Army Corps of

Engineers during the development of the Stonewall Secure Business Park. Trees and vegetation will be preserved in the RSCOD, stream valley buffer, floodplain and tree save areas.

The proffers contain a commitment for low impact development design/best management practices, erosion and sediment control and turbidity management, tree save areas, RSCOD, very steep slope areas, green building standards, protection of Wood Turtle habitat, if found on the Subject Property.

- (10) Whether the proposed rezoning encourages economic development activities in areas designated by the Comprehensive Plan and provides desirable employment and enlarges the tax base.**

Development of the Stonewall Secure Business Park and the proposed data center uses will encourage economic development activities and will provide desirable employment. Significant tax revenues from the Stonewall Secure Business Park will help offset the residential uses within Loudoun County.

The proposed location for the Stonewall Secure Business Park is appropriate adjacent to the Hybrid Energy Park which can provide an adequate source of electricity for the operation of the data center uses. Data center uses are also appropriate at this location with the existing fiber optic network that connects to the Metropolitan Area Ethernet East ("MAE East"). MAE East is the eastern branch of the MCI/Worldcomm Internet Exchange Point for connecting internet service providers and it spreads across the east coast of the United States, with locations in Vienna, Reston and Ashburn, Virginia; New York, New York; and Miami, Florida.

Loudoun County Department of Economic Development's presentation titled "A World Class Choice for Data Centers" states that "Access to multiple lit fiber networks, the availability of power and the specific location" are vital key ingredients for successful data centers. The Metropolitan Area Exchange East ("MAE East") lies in Loudoun County, and is the source through which thousands of Internet Service Providers exchange internet traffic between their networks. Data centers positioned close to MAE East have a better ability to deliver content throughout the world at a lower cost of internet bandwidth. Stonewall Secure Business Park's strategic location near the Hybrid Energy Park, natural gas lines, lit fiber optic infrastructure, fiber optic infrastructure corridors and non-public accesses make this site a prime location for uses within this desired Cluster.

- (11) Whether the proposed rezoning considers the needs of agriculture, industry,**

and businesses in future growth.

The proposed PD-IP zoning district is appropriate for the Subject Property which is immediately adjacent to the recently approved Hybrid Energy Park and the Luck Stone property that is proposed to be rezoned to MR-HI and used for quarrying. Additionally, the Subject Property is partially within the Quarry Overlay District and entirely within the Airport Impact Overlay District.

- (12) Whether the proposed rezoning considers the current and future requirements of the community as to land for various purposes as determined by population and economic studies.**

The proposed rezoning for the development of the Stonewall Secure Business Park is appropriate adjacent to the Hybrid Energy Park and it will protect the quarry uses from residential uses. The Stonewall Secure Business Park will provide a location for high security and data center uses.

- (13) Whether the proposed rezoning encourages the conservation of properties and their values and the encouragement of the most appropriate use of land throughout the County.**

The Stonewall Secure Business Park is an appropriate use of the land in this area of the County, since it is adjacent to the Hybrid Energy Park, the electric transmission lines and natural distribution lines. The current zoning of the Subject Property does not allow the highest and best use of the Subject Property. The Stonewall Secure Business Park rezoning and special exception uses will provide a large campus setting for high security uses and facilities creating an opportunity in Loudoun County for a new Federal Government Contracting Industry Cluster.

- (14) Whether the proposed rezoning considers trends of growth or changes, employment, and economic factors, the need for housing, probable future economic and population growth of the county and the capacity of existing and/or planned public facilities and infrastructure.**

The land uses have changed in the area with the recently approved Hybrid Energy Park, Luck Stone's purchase of additional property adjacent to the existing quarry and Loudoun Water's proposed water treatment facility. There is a growing demand for data center sites in secure surroundings. A Loudoun Times-Mirror article titled "Do Loudoun's businesses have their heads in the cloud?" dated July 21, 2010, reported "Data centers are exploding in Loudoun – the county is home to more than 2 million square feet of data center space and will likely add more in the future, according to Buddy Rizer, the county's business development manager"

Stonewall Secure Business Park will provide a large campus setting for high

security uses and facilities creating an opportunity in Loudoun County for a new Federal Government Contracting Industry Cluster which will accommodate data center uses. Loudoun County Department of Economic Development's presentation titled "A World Class Choice for Data Centers" states that "Access to multiple lit fiber networks, the availability of power and the specific location" are vital key ingredients for successful data centers. The Metropolitan Area Exchange East ("MAE East") lies in Loudoun County, and is the source through which thousands of Internet Service Providers exchange internet traffic between their networks. Data centers positioned close to MAE East have a better ability to deliver content throughout the world at a lower cost of internet bandwidth. Stonewall Secure Business Park's strategic location near the Hybrid Energy Park, natural gas lines, lit fiber optic infrastructure, fiber optic infrastructure corridors and non-public accesses make this site a prime location for uses within this desired Cluster.

Transportation improvements will be made to accommodate the development of the Stonewall Secure Business Park.

- (15) The effect of the proposed rezoning to provide moderate housing by enhancing opportunities for all qualified residents of Loudoun County.**

Housing is not appropriate on the Subject Property due to the proximity of the Luck Stone quarries, Loudoun Water's proposed water treatment plant, the Hybrid Energy Park, Leesburg Airport noise, overhead transmission lines and towers and the natural gas transmission lines.

- (16) The effect of the rezoning on natural, scenic, archaeological, or historic features of significant importance.**

The rezoning will have minimal impacts on natural, scenic, archeological, or historic features of significant importance.

The previously submitted "Phase I Archeological Investigations of the Circa 652 acre Creekside Areas 4 and 5 Property, Loudoun County, Virginia" report prepared by Thunderbird Archeology dated October 2005, identified the following on the Subject Property: Sycolin Pottery archaeological site, 44LD1195 was previously recorded and investigated. This site has a domestic component dating to the early 19th and a 19th century pottery kiln component; Archaeological Sites 44LD1326 and 44LD1329 were previously recorded and investigated. These sites will be protected during construction. The proffers address impacts to the Sycolin Pottery site if impacted by road improvements.

Sycolin Creek will be protected and the riparian area will be enhanced with the implementation of Scenic Creek Valley Buffer and the River and Streams

Attachment
Statement of Justification
Stonewall Secure Business Park
ZMAP 2008-0017
SPEX 2008-0068, SPEX 2008-0069, SPEX 2008-0070 & SPEX 2010-0018
CMPT 2010-____

Corridor buffer. Existing trees and vegetation within the tree save areas will be protected and preserved.

Section 6-1310 Issues of Consideration of the Revised 1993 Loudoun County Zoning Ordinance states: "In considering a special exception application, the following factors shall be given reasonable consideration."

(A) Whether the proposed special exception is consistent with the Comprehensive Plan.

The proposed Stonewall Secure Business Park is consistent with the Comprehensive Plan. The Subject Property is located within the Transition Policy Area and the Lower Sycolin Creek Subarea as specified in the Loudoun County's Revised General Plan (RGP). The Transition Policy Area serves as a visual and spatial transition between the Suburban and Rural Policy Areas and envisioned that it will provide unique development opportunities (emphasis added). The non-residential component of the Transition Policy Area will be comprised of compatible uses that represent an appropriate transition from suburban to rural land uses.

Data center uses will be the predominant use of the Stonewall Secure Business Park and the proposed special exception uses are supportive of the data center uses. The water treatment plant and water storage will provide a back up source of water if public water is not available.

Additionally, the proposed special exception for an indoor firearm range would be needed with a training facility within the Stonewall Secure Business Park.

(B) Whether the proposed special exception will adequately provide for safety from fire hazards and have effective measures of fire control.

The proposed special exception uses will be constructed to meet all requirements for safety from fire hazards and effective measures of fire control will be reviewed with appropriate Loudoun County Fire, Rescue and Emergency Management personnel.

(C) Whether the level and impact of any noise emanating from the site, including that generated by the proposed use, negatively impacts the uses in the immediate area.

Noise emanating from the generators for the data centers within the Stonewall Secure Business Park will meet the requirements of the Zoning Ordinance and will not negatively impact the uses in the immediate area. Noise attenuation measures will be incorporated to insure compliance with the Zoning Ordinance requirements.

(D) Whether the glare or light that may be generated by the proposed use negatively impacts uses in the immediate area.

Exterior lighting will be directed downward and inward to the extent feasible in order to prevent any glare on adjacent properties. The proffers address lighting.

- (E) **Whether the proposed use is compatible with other existing or proposed uses in the neighborhood, and adjacent parcels.**
The proposed Stonewall Secure Business Park uses are compatible with the existing residential uses to the west and with the industrial uses of the Hybrid Energy Park, the Luck Stone quarry and the proposed Loudoun Water water treatment plant on the property in the immediate vicinity to the east.
- (F) **Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses.**
Existing trees and vegetation will be retained in the Tree Save Areas and additional landscaping and screening will be provided to buffer the uses within the Stonewall Secure Business Park from the existing residential uses. The river stream corridor and resources management buffer and the Stream Valley Buffer areas along Sycolin Creek will provide additional buffering.
- (G) **Whether the proposed special exception will result in the preservation of any topographic or physical, natural, scenic, archaeological or historic feature of significant importance.**
Sycolin Creek will be preserved and protected with the river stream corridor and resources management buffer and the Stream Valley Buffer. The archeological sites will be protected from construction and preserved. The proffers address the pottery kiln archaeological site 44LD1195, if impacted by road improvements. Tree Save Areas are addressed in the proffer which will preserve areas of existing trees and vegetation. The Wood Turtle habitat will be preserved, if determined to be located within the Stonewall Secure Business Park
- (H) **Whether the proposed special exception will damage existing animal habitat, vegetation, water quality (including groundwater) or air quality.**
The proposed water treatment plant and water storage, and utility substation, transmission special exception uses will not damage existing animal habitat, water quality or air quality. The proffers address the protection of the Wood Turtle Habitat, if determined to be located within the Stonewall Secure Business Park. The proffers also address low impact design, best management practices, tree save areas, RSCOD, erosion and sediment control and turbidity management.
- (I) **Whether the proposed special exception at the specified location will contribute to or promote the welfare or convenience of the public.**
The proposed Stonewall Secure Business Park will provide a secure site for data

center uses which may support national security. Secure data center uses require a dedicated source of electricity and back up sources of utilities in a situation where the public utilities may not be otherwise available.

Development of the Stonewall Secure Business Park and the proposed data center uses will encourage economic development activities and will provide desirable employment. Significant tax revenues from the Stonewall Secure Business Park will help offset the residential uses within Loudoun County.

- (J) Whether the traffic expected to be generated by the proposed use will be adequately and safely served by roads, pedestrian connections and other transportation services.**

Based upon the results of the "Transportation Impact Analysis Stonewall Secure Business Park" dated December 2010, prepared by Kittelson & Associates, Inc., the proposed development will affect the transportation system to varying degrees during the phased build-out of the full project. The proffers will address the transportation improvements associated with the development of the Stonewall Secure Business Park. Pedestrian connections and other transportation services are not appropriate for security reasons.

- (K) Whether, in the case of existing structures proposed to be converted to uses requiring a special exception, the structures meet all code requirements of Loudoun County.**

There are no existing structures on the Subject Property.

- (L) Whether the proposed special exception will be served adequately by essential public facilities and services.**

The proposed Stonewall Secure Business Park special exception uses will be served adequately by public facilities and services. Loudoun Water will provide sanitary sewer and water utilities for the Park and the Applicant will provide connections. The proposed utility substation may provide electric power from the power grid, if power is not available from the grid from the Hybrid Energy Park.

- (M) The effect of the proposed special exception on groundwater supply.**

Stormwater management and best management practices will be incorporated into the site design which will assist in maintaining the quality of the ground water supply. The Applicant will comply with requirements of the Facilities Standards Manual Section 5.320.E that requires the implementation of a stormwater pollutant prevention plan. Oil and water separators will be provided in areas where multi-axle vehicles will be stored or in loading area where the vehicles will operate. The proffers address low impact development design and best management practices, RSCOD, erosion and sediment control and turbidity

management.

- (N) **Whether the proposed use will affect the structural capacity of the soils.**
The proposed data center uses and special exception uses will be designed to be consistent with the structural capacity of the soils.

- (O) **Whether the proposed use will negatively impact orderly and safe road development and transportation.**
The "Transportation Impact Analysis Stonewall Secure Business Park Loudoun County, Virginia" dated December 2010, prepared by Kittelson & Associates, Inc., Executive Summary states "Based on the results of the transportation impact analysis, the proposed development will affect the transportation system to varying degrees during the phased build-out of the full project."

The proffers will address the road improvements that are needed to safely accommodate the traffic that will be generated by the Stonewall Secure Business Park.

- (P) **Whether the proposed special exception use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.**
The Stonewall Secure Business Park combined with the Hybrid Energy Park will diversify the economic base and will provide Loudoun County with tax revenues and generate electricity for the region. Redundant and reliable source of electrical power is critical and necessary for high tech and data center reliability.

Development of the Stonewall Secure Business Park and the proposed data center uses will encourage economic development activities and will provide desirable employment. Significant tax revenues from the Stonewall Secure Business Park will help offset the residential uses within Loudoun County.

The proposed location for the Stonewall Secure Business Park is appropriate adjacent to the Hybrid Energy Park which can provide an adequate source of electricity for the operation of the data center uses. Data center uses are also appropriate at this location with the existing fiber optic network that connects to the Metropolitan Area Ethernet East ("MAE East"). MAE East is the eastern branch of the MCI/Worldcomm Internet Exchange Point for connecting internet service providers and it spreads across the east coast of the United States, with locations in Vienna, Reston and Ashburn, Virginia; New York, New York; and Miami, Florida.

Loudoun County Department of Economic Development's presentation titled "A World Class Choice for Data Centers" states that "Access to multiple lit fiber networks, the availability of power and the specific location" are vital key ingredients for successful data centers. The Metropolitan Area Exchange East ("MAE East") lies in Loudoun County, and is the source through which thousands of Internet Service Providers exchange internet traffic between their networks. Data centers positioned close to MAE East have a better ability to deliver content throughout the world at a lower cost of internet bandwidth. Stonewall Secure Business Park's strategic location near the Hybrid Energy Park, natural gas lines, lit fiber optic infrastructure, fiber optic infrastructure corridors and non-public accesses make this site a prime location for uses within this desired Cluster.

- (Q) Whether the proposed special exception considers the needs of agriculture, industry, and businesses in future growth.**

The proposed special exception uses and the development of the Stonewall Secure Business Park will provide a large campus environment for the growing demands for secure data center uses. Secure data centers are vital for national security and combined with the Hybrid Energy Park will provide a clean, reliable and renewable source of electrical power that is critical and necessary for Loudoun County's economic base.

- (R) Whether adequate on and off-site infrastructure is available.**

Public water and sewer are available from Loudoun Water. There are existing overhead power lines, and underground gas lines on the Subject Property. The Hybrid Energy Park may provide electricity to power the data center uses in the Stonewall Secure Business Park. Transportation improvements will be made to the site's access to serve the employees of the Stonewall Secure Business Park. Additional transportation improvements or cash contributions will be made to mitigate the impacts of the development of the Stonewall Secure Business Park.

- (S) Any anticipated odors which may be generated by the uses on site, and which may negatively impact adjacent uses.**

No odors are anticipated with the Stonewall Secure Business Park uses on the Subject Property that will negatively impact the adjacent uses.

- (T) Whether the proposed special exception uses sufficient measures to mitigate the impact of construction traffic on existing neighborhoods and school areas.**

Appropriate and sufficient measures to mitigate the impact of the construction traffic on the existing residential uses will be determined during the processing of the site plan applications.



**WALSH COLUCCI
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& WALSH PC**

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Land Use Planner
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February 18, 2011

Via Hand Delivery

Judi McIntyre Birkitt, Senior Planner
Loudoun County Department of Planning, Land Use Review
1 Harrison Street, S.E.
3rd Floor
Leesburg, Virginia 20177

Re: Stonewall Secure Business Park (third referral)
ZMAP 2008-0017, SPEX 2008-0068-70, SPEX 2010-0018,
SPEX 2010-0034 & CMPT 2010-0014

Dear Ms. Birkitt:

This letter addresses and provides you with a written response to the referral agency comments in the above referenced application. For your convenience, each of the staff comments are stated below and the Applicant's responses follow in bold italics.

LOUDOUN COUNTY DEPARTMENT OF PLANNING-COMMUNITY PLANNING (JOE GORNEY, 1/28/2011)

OUTSTANDING ISSUES

Electrical Substation

The most recent submittal includes a Special Exception and a Commission Permit request for a utility substation. Loudoun County policies support the timely delivery of electrical service to businesses as development occurs. The County recognizes that new technology companies, such as computer data centers, have a positive net fiscal impact to the County but have specialized infrastructure needs, such as additional electrical power (*Revised General Plan, Chapter 2, Energy and Communication Facilities text*). The County aims to accommodate the changing technological requirements of capital-intensive technology industries while balancing any potential harmful environmental effects on the community (*Revised General Plan, Chapter 2, Energy and Communication Policy 5*).

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ATTORNEYS AT LAW

The proposed substation would support economic development activity by providing service to the proposed data centers. However, staff can not support the proposed substation until the outstanding issues associated with the application are resolved.

Applicant Response

The proposed utility transmission substation in the Stonewall Secure Business Park is crucial in providing a secure redundant source of electrical power for the data center owner operators. With the ever-increasing load demand of the industry, the existing (new) 40 MW NOVEC substation in the Philip A. Bolen Memorial Park will not be sufficient to accommodate the power needs for the business park. Local distribution lines do not carry enough power to support these facilities. The levels of power redundancy and security is highly client dependent, certain high end users require a dedicated source, some requiring multiple generation feeds while others have the ability to share a common facility. The existing transmission facilities on the property allow for the direct drop feed to service the Business Park from one or both of the 230 KV lines.

Power security of an on-site substation for the Stonewall Secure Business Park and its users is imperative. Numerous redundancies and options in power supply, distribution and control over the utility substation are critical for security. These options include NOVEC the local service provider, 230 KV transmission lines each independently to a substation, Green Energy Hybrid generating plant and self contained back up power generation. In providing sufficient options, the self contained generation units may be minimized and maintain power security.

Land Use

With a proposed density of 0.6 FAR, a potential building area of 4.9 million square feet, and maximum building heights of 100 feet for more than half of the building areas, the proposed development more closely reflects a suburban-style industrial and office complex than the rural character envisioned for non-residential uses within the Transition Policy Area. While non-residential uses may be reasonable for all or a portion of the site given the proximity of a proposed power plant, quarry, and water treatment plant, the scale of the proposed development is incompatible with the rural character, lower densities, and higher open space requirements envisioned for the Lower Sycolin subarea (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding land use).

Applicant Response

The Applicant worked closely with the Department of Economic Development to provide a location for data center users that require secure sites. The proposed

FAR and building heights of 100 feet provide maximum flexibility for a data center user(s). Limitations on the maximum height of buildings are identified on the Concept Plan and the lower building heights are adjacent to residential uses and in areas where taller buildings would be visible from the Dulles Greenway and Sycolin Road. The Tree Save Areas combined with the topography and the limitation on the height and location of buildings and parking areas will make the Stonewall Secure Business Park blend in with its surroundings and not be highly visible.

Since data center uses are considered as office uses under the Zoning Ordinance, the Stonewall Secure Business Park is an ideal location and better location than other areas in the County planned for Class A office uses. Class A office uses are planned in the Suburban Policy Area where the transportation network is well established and future rail or transit facilities are planned and also near the Dulles International Airport.

Data centers are currently locating in areas of the County that are planned for Class A office uses and mixed use developments.

Open Space

The Lower Sycolin subarea is anticipated to have the highest amount of open space of the six Transition Policy Area subareas. As proposed, approximately 51 percent of the development area is designated as "Potential Open Space." However, it appears that the open space area would be reduced by the construction of a water storage tank, a water treatment plant, parking, two Data Interconnect Buildings, an Electrical Substation, and the planned alignment of a Countywide Transportation Plan road (Cochran Mill Road). With the exception of designated Tree Save Areas and identified Green Infrastructure resources, such as wetlands and steep slopes, the disposition of the remaining open space is unclear, including the outparcel on the south side of the Dulles Greenway. County policies state that open spaces should be left in a mostly undeveloped state and that the Green Infrastructure resources within those spaces should be protected and enhanced. The utility of the Potential Open Space as a managed natural resource area is questionable if Green Infrastructure resources are eliminated in lieu of security measures and grading changes. Overall, the amount of open space and the protection and enhancement of the Green Infrastructure resources within those spaces have not been adequately addressed (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding open space).

Applicant Response

The Applicant is committed to providing a minimum of 51% open space which is proffered. Within the open space areas are tree save areas. The proffers address the tree save areas, the rivers and stream corridor resources management buffer, and Sycolin Creek.

The Applicant would agree to a condition of approval that the reserved areas for future parking would be maintained as natural open, if the data center uses are converted to commercial office uses.

Forest Resources

The project area contains high-quality forest resources, including upland hardwoods and bottomland hardwoods. The applicant's Forest Management Plan cites these resources as the highest priorities for preservation. Upland hardwoods are located primarily between the electric transmission lines and the underground natural gas lines, west of the gas lines, and south of Sycolin Creek. Bottomland hardwoods are located in the floodplain along Sycolin Creek. The site also contains lesser-quality early successional forest comprised primarily of Eastern Red Cedar and Virginia pine. These stands were cited as low priorities for preservation.

The proposed development would result in the elimination of a significant portion of the upland hardwoods, the highest priority forest resource. Tree Save Areas protect only a portion of the upland and bottomland hardwoods and building areas do not appear to have adequately considered them. In addition to providing habitat and increasing soil stability, these resources help filter views of the overhead electric lines and the cleared natural gas easement. Independent of the significance of these forest resources, development of the site as proposed would result in the clearing of areas both to the east and west of the utility corridors, creating an expansive open area in the central portion of the site.

Without protection and enhancement of the highest priority forest resources, especially in light of their adjacency to the cleared utility corridors, it is unlikely that the project will be able to establish natural open spaces as predominant visual elements and enhancements to the area's river and stream corridors or that the project will blend effectively (visually and spatially) into the area, in fulfillment of County policies (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding forest resources).

Applicant Response

Additional tree save areas have been identified on the Concept Plan adjacent to Sycolin Creek that contain bottomland hardwoods.

Steep and Moderately Steep Slopes

The project area contains 13.5 acres of moderately steep slopes and 4.8 acres of steep slopes. County policies call for a prohibition of land disturbance of steep slopes and special performance standards for moderately steep slopes. While the applicant will avoid areas of steep slopes in accordance with County regulations, the applicant has made no commitments regarding performance standards for moderately steep slopes (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding steep and moderately steep slopes).

Applicant Response

The Applicant will meet the performance standards for moderately steep slopes as required by the Zoning Ordinance.

Plant and Wildlife Habitats

The site contains habitat for the wood turtle (*Glyptemys insculpta*), a state-threatened species, and other vegetative and wildlife resources. Wood turtle habitat primarily includes Sycolin Creek, adjacent floodplains, and adjacent wetlands. The applicant proposes proffers regarding the wood turtle and a Tree Save Area along portions of Sycolin Creek. The applicant states that construction will be located in areas that do not provide high quality habitat, where practicable. Proffers define actions to be taken prior to land-disturbing activities in wood turtle habitat. Given that the wood turtle habitat has been defined to include sensitive Green Infrastructure resources, it is unclear why land-disturbing activities would be necessary in those areas and why only a portion of those areas have been protected. Additionally, the proffers define much of those areas as a Rivers and Stream Corridor Resources Management Buffer, which allows a range of uses including road construction, bridge construction, stormwater management, drainage improvements, water lines, sanitary sewer lines, slope stabilization, wetlands mitigation, landscaping, and other project utilities.

The proffers do not discuss resource management actions for remaining areas within the Potential Open Space but outside of the Tree Save Areas and the Rivers and Stream Corridor Resources Management Buffer. Additional resource protection could be achieved through an expansion of Tree Save Areas to include the remaining open space areas. Protection measures could include coordination with the County Urban

Forester regarding appropriate forest management and habitat commitments, best management practices, including the transplanting of desirable species and the removal of Virginia pine, long-term maintenance, the removal of invasive species, and the incorporation of indigenous vegetation into the landscape design of the entire development (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding plant and wildlife habitats).

Applicant Response

The open space areas outside of the Tree Save Areas will be maintained in a natural state.

Noise Impacts

Uses proposed within the project site that may produce high levels of noise include data centers (including generators), light manufacturing, security training, and testing facilities. The proposed proffers state that noise from generators will be attenuated through the use of walls, baffles, the placement of generators behind buildings, and other appropriate measures. The applicant did not model the noise impacts, stating that the location, number, noise levels, and testing of generators could not be determined until site plans are filed.

While details regarding noise-generating uses have not yet been determined, additional noise mitigation measures could include a commitment to the enclosure of all high noise-producing uses and a commitment to the reduction of continuous and impact noise levels to no greater than 50 dBA at the property lines of adjacent residences and parks and 60 dBA for all other uses (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding noise impacts).

Applicant Response

The proffer has been revised to include other uses that may produce high levels of noise and mitigating noise levels adjacent to parks. An additional proffer has been added for the Applicant to provide documentation that the noise levels meet the requirements of the Zoning Ordinance after construction.

Lighting

The proposed proffers state that all lighting will be directed downward and inward, full cutoff and fully shielded, and in conformance with the Zoning Ordinance and Facilities Standards Manual. All exterior luminaries shall use a "shoebox" design and cutoff optics, where feasible. Additional commitments may be needed to ensure that lighting

is confined to the site and turned off when not needed, unless required for safety or security purposes, and that illumination levels will be no greater than necessary for a light's intended purpose. All lighting should be mounted as low as practicable and preclude light trespass onto adjoining properties, glare to passersby, skyglow, and deterioration of the nighttime environment (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding lighting).

Applicant Response

The proffers have been revised to require lighting to be mounted as low as practicable to preclude light trespass onto adjoining residential uses.

Cultural Resources

Staff's review of cultural resources will be sent under separate cover.

Stormwater Management

In the first two referrals, citing the adjacency of the project to Sycolin Creek, the Goose Creek reservoir, and a drinking water intake, staff recommended that the applicant consider various Low Impact Development (LID) techniques, such as permeable pavers, porous concrete, cisterns, planted swales, curb cuts, rain gardens, and bioretention filters adjacent to impervious areas. In response, the applicant has proposed a proffer specifying adherence to measures defined in the Virginia Stormwater Management Handbook and the Facilities Standards Manual but has not committed to any specific LID practices (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding stormwater management).

Applicant Response

The proffer has been revised to add LID techniques including but not limited to grass line drainage, tree save areas, buffer areas and stormwater management. The specific LID techniques will be implemented through the site plan process and may be unique to each site within the Stonewall Secure Business Park.

Quarry Compatibility

ZMAP 2010-0006 (QN Expansion - Luck Stone Leesburg), which expanded the Quarry Notification Overlay District, was approved on January 4, 2011. The Overlay District now includes most of the subject property with the exception of a strip of land approximately 400 feet wide along the western edge of the property and adjacent to Sycolin Road.

Staff recommends that all application materials be updated to reflect the expansion of the Quarry Notification Overlay District and that the Concept Plan include a note stating that the property is in an area that may be impacted by quarry operations and blasting.

Applicant Response

The plans have been updated to reflect the expansion of the Quarry Notification Overlay District.

Bicycle & Pedestrian Accommodations

Both Sycolin Road and Cochran Mill Road are Baseline Connecting Roadways identified in the Bicycle and Pedestrian Mobility Master Plan. Neither the proffers nor the Concept Plan address internal or external bicycle or pedestrian accommodations. Bicycle and pedestrian facilities are particularly important along Sycolin Road given the presence of a Park-and-Ride lot approximately 1½ miles north of the property along Sycolin Road (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding bicycle and pedestrian accommodations).

Applicant Response

A note has been added to the Concept Plan for location of a bicycle and pedestrian trail and the proffers specify the trail will be ten-feet and within a 14-foot wide easement. Within the Stonewall Secure Business Park there will be a trail along the side of the private roads, as shown on Concept Plans Sheet 6 of 7.

Building Scale & Form

The Concept Plan depicts building areas and the general location of internal roads. The application proposes 100-foot maximum building heights for more than half of the building areas. Building design is not addressed.

100-foot buildings generally reflect a suburban-style industrial and office complex rather than the rural character envisioned for non-residential uses within the Transition Policy Area. These buildings are especially problematic adjacent to residential properties and the Dulles Greenway.

Additionally, the Concept Plan contains a note stating that the 50-foot landscape buffer and perimeter treatment would not be provided adjacent to PD-GI or MR-HI zoned properties or the Dulles Greenway (Sheet 4, Note 8). The elimination of these buffers would diminish the ability of the proposed development to effectively blend into the area (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding building scale and form).

Applicant Response

The Applicant is working on cross sections and line of sight exhibits which will demonstrate how the buildings at the maximum heights permitted will be viewed from Dulles Greenway.

A 50-foot landscape buffer and perimeter treatment adjacent to PD-GI and MR-HI zoned property which contain industrial and quarry uses will not serve any purpose. The adjacent Luck Stone property contains the area for overburden storage; the overburden will in effect become large berms which will provide a good transition.

Parking

The Concept Plan and proffers do not address internal landscape treatments of parking. Internal landscape treatments are particularly important given the views of the development from the Dulles Greenway (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding parking).

Applicant Response

The Applicant will meet the requirements of the Zoning Ordinance for internal landscape treatments for parking areas. The Tree Save Areas combined with the building and parking locations and the topography will screen the view of parking areas.

Water & Wastewater Facilities

The proposed water storage tank would be approximately 120 feet tall and sited on ground that is approximately the same elevation as the Leesburg Executive Airport. The storage tanks would lie approximately one mile to the south of the Leesburg Airport runway and under or near its final approach path. It is unclear whether the applicant has discussed possible water storage tank locations with the Federal Aviation Administration or the Airport Manager to determine whether the proposed water storage tanks present a hazard to air navigation (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding water and wastewater facilities).

Applicant Response

During the processing of the Hybrid Energy Park applications, the Applicant contacted the Leesburg Airport and there are no conflicts with the proposed height of the water storage tank. The water storage tank will not be as tall as the

existing overhead power transmission lines. The Applicant will agree to a condition of approval, that prior to site plan approval for the water storage tank, they will contact the Leesburg Airport to confirm the location will not impact the air traffic.

MODIFICATIONS

The applicant requests 4 Zoning Ordinance Modifications (ZMODs) for the proposed project relating to Size and Location, Maximum Building Height, Screening and Buffering, and Outdoor Storage and On-Site Parking of Business Vehicles (see 2nd Referral, dated September 22, 2010, for further discussion and recommendations regarding the proposed modifications).

COMMISSION PERMIT

The County will determine the need for new public facilities and will identify suitable sites based on the Revised General Plan, appropriate area plans, land use, and growth policies (Revised General Plan, Chapter 3, General Public Facilities Policy 2).

In accordance with the Revised 1993 Zoning Ordinance, a Commission Permit is required when a public utility or public service facility is constructed to determine if the general location, character, and extent of the proposed use are in substantial accord with the Comprehensive Plan.

The electrical substation is proposed under and adjacent to existing overhead electrical transmission lines. The substation would access the transmission lines and be used to serve the proposed data centers.

Staff is unable to recommend approval of a Commission Permit for the proposed use until the outstanding issues associated with the application are resolved.

RECOMMENDATION

The proposed project is more typical of a high-intensity business park within the Suburban Policy Area than a low-intensity use that will promote a rural character within the Transition Policy Area. The applicant may wish to explore alternative locations or a reduced density commensurate with the Transition Policy Area. Staff does not support the application as proposed.

Applicant Response

The proposed location is ideal for a secure business park and will not be typical of a high-intensity business park in the Suburban Policy Area for all of the reasons previously stated.

LOUDOUN COUNTY DEPARTMENT OF BUILDING & DEVELOPMENT – ZONING ADMINISTRATION (AMY LOHR, 2/2/2011)

A. CRITICAL ISSUES

1. **SPEX 2008-0068.** This application requests approval of office uses, and additionally that those office uses be allowed at a maximum floor area ratio (FAR) up to .60. However, on Sheet 2, the Overall PD-IP Site Density Tabulation table indicates a proposed FAR of 0.6 for the district. Based on this table, there is no restriction on the .60 FAR, and this table conflicts with the Proposed Spex Land Uses table. The conditions of approval and plat need to clearly state the intended limitations of the FAR special exception. Further, in relation to this special exception, staff suggests limiting the square footage of office (including data center) uses for the district. (Prior comment B.31.) The Applicant's traffic study indicates 4,500,000 square feet of data center uses and 500,000 square feet of office uses at build-out, but there is no commitment to these uses only in the application. Further, this development program would be more consistent with rezoning to the PD-OP district in support of 100% office uses.

Applicant Response

The office uses are proposed to an FAR up to .60 or 4.9 million square feet and all of the other uses are limited to an FAR up to .40 or 3.2 million square feet. This will be implemented with each site plan application on the Subject Property. The Applicant has included a proffer that not more than 10% of the total allowable gross floor area on the Subject Property shall be developed with stand alone commercial office uses (not including data center uses).

The PD-OP district does not contain all of the needed uses, such as indoor firing range and archery range and is also not appropriate adjacent to the industrial uses.

2. **Potential Access Points.** Sheets 4 and 5 illustrate a potential access point from the proposed PD-IP district to the existing PD-GI district to the north. Per ZMAP 2009-0005, this PD-GI zone may only be used for a utility generating plant and transmission facility. As such, the zoning of any such private road to this facility would also need to permit this use. A utility generating plant is not permitted in the PD-IP district. Therefore, this access point needs to be removed from the plan. Finally, in relation to potential access points, some land bays do not have an arrow indicating access to such land bay. This should be corrected.

Applicant Response

This issue was discussed at the meeting on February 14, 2011, and it was clarified that the access point to Gant Lane is for emergency access only. The note on the Concept Plan has been revised accordingly.

3. **Section 6-1211(E)(1) - Whether the proposed zoning district classification is consistent with the Comprehensive Plan.** The site is planned for transition land uses. The proposed rezoning to the PD-IP district is not consistent with the Comprehensive Plan. Zoning staff defers to Community Planning for further comment regarding consistency with the Revised General Plan. (Prior comment A.2.) Additionally, with regard to Route 653 (Cochran Mill Road), the approved concept plan for ZMAP 2009-0005 illustrates a 70-foot right-of-way reservation for realigned Route 653. An adjoining reservation should be made with this application, to be shown on the plat and noted in the proffer.

Applicant Response

The Applicant worked closely with the Department of Economic Development to provide a location for data center users that require secure sites. The proposed FAR and building heights of 100 feet provide maximum flexibility for a data center user(s). Limitations on the maximum height of buildings are identified on the Concept Plan and the lower building heights are adjacent to residential uses and in areas where taller buildings would be visible from the Dulles Greenway and Sycolin Road. The Tree Save Areas combined with the topography and the limitation on the height and location of buildings and parking areas will make the Stonewall Secure Business Park blend in with its surroundings and not be highly visible.

The proposed PD-IP zoning district is appropriate adjacent to MR-HI and PD-GI zoned property and will provide a transition between the quarry, power generation plant park and residential uses, The Stonewall Secure Business Park is an ideal location and better location for data center uses than other areas in the County planned for Class A office uses. Class A office uses are planned in the Suburban Policy Area where the transportation network is well established and

future rail or transit facilities are planned and also near the Dulles International Airport.

Data centers are currently locating in areas of the County that are planned for Class A office uses and mixed use developments.

During the County's review of the Countywide Transportation Plan, the Applicant provided statements and information of why the realignment of Cochran Mill Road was not needed. The area with the quarry, Hybrid Energy Park and other industrial uses will remain and are not proposed for residential uses. The Applicant has not agreed to show the realignment of Cochran Mill Road, since it will not be built and it is not needed to carry traffic. Crosstrail Boulevard is partially constructed and in use and will be completed in the future to serve the purpose of the realigned Cochran Mill Road.

4. **Sections 6-1300, Special Exception/6-1301, Purpose.** The special exception procedure is designed to provide the Board of Supervisors with an opportunity for discretionary review of requests to establish or construct uses or structures which have the potential for a deleterious impact upon the health, safety, and welfare of the public. Staff maintains that the provided Concept Plan (ZMAP/SPEX/Plat) lacks sufficient detail to review potential impacts. (Prior comment A.3.) Where appropriate to the nature of the use, the conditions of approval and plat should set forth maximum square footages for the special exception uses being requested.

Applicant Response

Sheet 2 of the Concept Plans list the maximum square footages of the office special exception uses up to a .60 FAR. The other special exception uses will not exceed the maximum .40 FAR or the square footages listed. This will be implemented at site plan review.

Furthermore, The proffers limit the development of stand alone commercial office uses (not including data center uses) to 10% of the gross floor area permitted on the Subject Property.

5. **Phasing.** The rezoning proposes up to 4.9 million square feet of development, generating the need for a proffered phasing program to ensure that adequate infrastructure is available at each phase of development. (Prior comments A.6. and D.10.)

Applicant Response

The transportation proffers provide a regional road contribution per square foot of development on the Subject Property. In addition, a proffer has been added to limit development on the Subject Property to 3,500,000 square feet until Crosstrail Boulevard is completed from Sycolin Road to the Dulles Greenway. The Applicant shall also be responsible for the construction of the site entrance and associated turn lanes on Sycolin Road.

6. **Section 6-1211(E)(4) - *Whether adequate utility, sewer and water, transportation, school and other facilities exist or can be provided to serve the uses that would be permitted on the property if it were rezoned. Per sheet 2, up to 4,900,000 square feet of development may occur if the property is rezoned. Adequate transportation infrastructure does not exist to serve this level of development and the proffer statement does not address the nature and timing of transportation improvements. (Prior comment B.4.)***

Applicant Response

The proffers have been revised to address this concern.

7. **Section 6-1211(E)(7) - *The impact that the uses that would be permitted if the property were rezoned will have upon the volume of vehicular and pedestrian traffic and traffic safety in the vicinity and whether the proposed rezoning uses sufficient measures to mitigate the impact of through construction traffic on existing neighborhoods and school areas. The applicant's proffer statement should outline transportation contributions and improvements related to vehicular, bicycle and pedestrian travel. (Prior comment B.6.) Staff also notes that while data center uses may generate less vehicle trips than other industrial uses and traditional office, the applicant has not committed to a development plan in which the predominant use is data centers.***

Applicant Response

The revised proffers address transportation contributions, pedestrian and bicycle travel. The development plan needs to be flexible to attract secure data center uses. The Applicant has included a proffer that not more than 10% of the total allowable gross floor area on the Subject Property shall be developed with stand alone commercial office uses (not including data center uses).

A bicycle and pedestrian trail has been added to the Concept Plan along a portion of Sycolin Road north of the proposed site entrance and a proffer has been added.

8. **Section 6-1310, Issues for Consideration.** Revise the statement of justification to address the issues for consideration in relation to the proposed utility substation, transmission.

Applicant Response

The proposed utility transmission substation in the Stonewall Secure Business Park is crucial in providing a secure redundant source of electrical power for the data center owner operators. With the ever-increasing load demand of the industry, the existing (new) 40 MW NOVEC substation in the Philip A. Bolen Memorial Park will not be sufficient to accommodate the power needs for the business park. Local distribution lines do not carry enough power to support these facilities. The levels of power redundancy and security is highly client dependent, certain high end users require a dedicated source, some requiring multiple generation feeds while others have the ability to share a common facility. The existing transmission facilities on the Subject Property allow for the direct drop feed to service the Business Park from one or both of the 230 KV lines.

Power security of an on-site substation for the Stonewall Secure Business Park and its users is imperative. Numerous redundancies and options in power supply, distribution and control over the utility substation are critical for security. These options include NOVEC the local service provider, 230 KV transmission lines each independently to a substation, Green Energy generating plant and self contained back up power generation. In providing sufficient options, the self contained generation units may be minimized and maintain power security.

B. OTHER ISSUES

1. **Section 6-1211(E)(10)** - *Whether the proposed rezoning encourages economic development activities in areas designated by the Comprehensive Plan and provides desirable employment and enlarges the tax base.* The proposed rezoning is not in an area designated for industrial development. (Prior comment B.9.)

Applicant Response

The Applicant worked closely with the Department of Economic Development to provide a location for data center users that require secure sites. Since data center uses are considered as office uses under the Zoning Ordinance, the Stonewall Secure Business Park is an ideal location and better location than other areas in the County planned for Class A office uses. Class A office uses are planned in the Suburban Policy Area where the transportation network is well established and future rail or transit facilities are planned and also near the Dulles International Airport. Data centers are currently locating in areas of the County that are planned for Class A office uses and mixed use developments.

2. **Section 6-1211(E)(13)** - *Whether the proposed rezoning encourages the conservation of properties and their values and the encouragement of the most appropriate use of land throughout the County.* See comments A.3. and B.1. above.

Applicant Response

See above.

3. **Section 6-1310(F)** - *Whether sufficient existing or proposed landscaping, screening and buffering on the site and in the neighborhood to adequately screen surrounding uses.* (Prior comment B.14.) The applicant's response indicates that additional landscaping or berming will be provided adjacent to the existing residential uses and that special exception uses are not proposed adjacent to existing residential uses. However, special exception uses (office/data center/indoor firearm range) are proposed adjacent to existing residential uses. In addition, there is no commitment to an enhanced buffer. Sheet 2 indicates landscape buffer/perimeter treatment per sheet 6, but the sheet 6 perimeter treatment is not proffered and appears to provide no additional landscaping, buffering or screening with respect to adjoining residential areas.

Applicant Response

For clarification, data centers and/or office uses, but not the indoor firing or archery range uses, may locate in Land Bays A, B and C. The Applicant will agree to a condition of approval for the Land Bays to provide enhanced landscaping treatments in the areas adjacent to the residential uses.

4. **Section 6-1310(P)** - *Whether the proposed special exception use will provide desirable employment and enlarge the tax base by encouraging economic development activities consistent with the Comprehensive Plan.* See comments A.3., B.1., and B.2. above.

Applicant Response

The Applicant worked closely with the Department of Economic Development to provide a location for data center users that require secure sites. Since data center uses are considered as office uses under the Zoning Ordinance, the Stonewall Secure Business Park is an ideal location and better location than other areas in the County planned for Class A office uses. Class A office uses are planned in the Suburban Policy Area where the transportation network is well established and future rail or transit facilities are planned and also near the Dulles International Airport. Data centers are currently locating in areas of the County that are planned for Class A office uses and mixed use developments.

Conformance with Section 6-1310—Office uses in PD-IP

5. **Section 6-1310(A)** - *Whether the proposed special exception is consistent with the Comprehensive Plan.* Staff reiterates that substantial office development is not consistent with transition land use policies. (Prior comment B.19.)

Applicant Response

The Stonewall Secure Business Park is proposed for high security users and data centers, which are classified as office uses. It is unlikely, the Park will be developed with Class A office uses, which typically require locations in other areas of the County, that are near the Dulles International Airport, major highways and transit and rail.

The Applicant has included a proffer that not more than 10% of the total allowable gross floor area on the Subject Property shall be developed with stand alone commercial office uses (not including data center uses).

Conformance with Section 6-1310—Floor Area Ratio up to .60 in PD-IP

6. **Section 6-1310(A)** - *Whether the proposed special exception is consistent with the Comprehensive Plan.* Staff maintains the proposed rezoning to the PD-IP district is not consistent with the Comprehensive Plan. Hence, special exception approval for increased floor area in the district is also inconsistent with Plan policies. The applicant has not demonstrated the need for or appropriateness of an increase in floor area above .40. (Prior comment B.21.)

Applicant Response

Data center uses require a larger amount of space to accommodate equipment, computers and associated facilities for the operation of a data center. Additionally, maximum flexibility is needed to attract high end data center users that require secure sites.

7. **Section 6-1310(E)** - *Whether the proposed use is compatible with other existing or proposed uses in the neighborhood, and adjacent parcels.* Increasing the permitted floor area ratio intensifies development in the PD-IP district and results in greater impacts to the adjacent residential properties zoned TR-10. (Prior comment B.22.)

Applicant Response

The building heights adjacent to the residential uses are generally limited to 45 feet, with the exception of Land Bay A, where there are adjacent Tree Save Areas. The maximum amount of commercial stand alone office uses is limited to 10% of the office use square footage. Data centers are a less intense use than commercial stand alone office uses. .

8. **Section 4-1400, AI-Airport Impact Overlay District.** Revise note 12 (existing conditions map) on sheet 2 to indicate that a small portion of parcel 60/41 is within the LDN-60 contour, not that the whole property is within the LDN-60 contour. (Prior comment B.34.)

Applicant Response

Note 12 has been corrected as requested,

9. **Section 5-600, Additional Regulations.** Certain uses are subject to the additional regulations of this section. Utility substations are subject to Section 5-616. The development plan shall specify these performance standards per Section 6-1508(A). Please add this information to sheet 2. On sheets 4 and 5, demonstrate the required type 4 buffer for the utility substation, transmission.

Applicant Response

A note has been added to Concept Plan Sheet 2 to state that the utility substation is subject to Section 5-616.

10. **Section 4-1800, QN - Quarry Notification Overlay District.** Revise all sheets to reflect the expanded quarry overlay district as a result of the approval of SPEX 2009-0027.

Applicant Response

The plans have been revised to reflect the expanded quarry overlay district as requested.

11. **Section 5-900, Access and Setbacks.** South of the Dulles Greenway on parcel 60/39, a 75-foot setback should be shown, not 35 feet. Additionally, the setback shall be measured from the ultimate planned right-of-way. The setback from Sycolin Road in this area does not appear to account for the ultimate 90-foot right-of way and should be revised.

Applicant Response

The setback on parcel 60/39 has been corrected to 75 feet. The setback along Sycolin Road is accurate and based upon the approved and constructed VDOT project as identified in the note on the plans.

12. **Section 5-1508, Steep Slope Standards.** Development on moderately steep slope areas shall meet the performance standards in Section 5-1508(F).

Applicant Response
Acknowledged.

C. SECTION 6-1504, MODIFICATIONS

A modification of the zoning ordinance shall be granted only when such modification is found to achieve an innovative design, improve upon the existing regulation, or otherwise exceed the public purpose of the existing regulation. Zoning staff offers the following evaluation of the proposed modifications:

1. **Section 4-502.** PD-IP districts shall be mapped in locations designated by the Comprehensive Plan for industrial use. The modification would allow remapping in a location not designated for industrial use.

Staff Comment: The Revised General Plan does not designate this area for industrial use. Zoning staff defers to Community Planning for further comment regarding consistency with the Revised General Plan.

Applicant Response

Stonewall Secure Business Park will be developed predominantly with data center uses and not industrial uses. For additional information, these issues are addressed in the above referenced responses to the Community Planning comments.

2. Section 4-506(B). Building height in the PD-IP district is 45 feet maximum, provided that a building may be erected to a maximum height of 100 feet if it is set back from streets or from lot lines that do not constitute boundaries of districts with lower maximum height restrictions, in addition to each of the required minimum yard dimensions, a distance of not less than one (1) foot for each one (1) foot of height that it exceeds the 45-foot limit. The modification proposes to allow for building height maximums up to 100 feet, without the need for the additional 1:1 setback.

Staff Comment: The justification indicates that the modification is proposed generally adjacent to the Dulles Greenway and other nonresidential uses. To that end, staff suggests the land bay in the northwest area of the site be reduced to the 45-foot height maximum since this area is adjacent to the TR-10 zone. Staff also notes that the 50-foot perimeter buffer is not proposed adjacent to the Dulles Greenway or nonresidential area, so there will not be additional vegetation to mitigate the visual impact of the taller buildings. Staff suggests the 50-foot perimeter buffer be installed in all locations with increased building heights.

Applicant Response

The Tree Save Areas have been expanded in the area adjacent to the TR-10 zoned property in the northwestern corner of the Subject Property where the maximum proposed building heights would be 100 feet. The Applicant will agree to a condition of approval to provide additional landscaping and screening in the 50 foot perimeter buffer area adjacent to residential uses.

3. Section 4-507(C). Landscaping, buffering, and screening shall be used to screen outdoor storage, areas for collection of refuse, loading area, and parking from streets and agricultural and residential uses. The modification proposes that this section apply only from public streets.

Staff Comment: Staff reiterates that no specific buffer types or enhancements to such buffers have been detailed by the applicant. As the level of landscaping, buffering, and screening is not clear, staff does not support this modification.

Applicant Response

For clarification, the proposed modification is requested to apply from residential uses and public streets. The 50 foot Landscape Buffer/Perimeter Treatment, Tree Save Areas and will provide landscaping, buffering and screening from residential uses and public roads.

4. Section 4-507(J). Allow parking of larger vehicles that exceed two axles that are required for data center operations or as an accessory to the primary use.

Staff Comment: Staff reiterates that this modification is not permitted in the PD-IP district.

Article 8 defines a “business vehicle” as “a vehicle associated with a business. Business vehicles shall not exceed a rated capacity of one and one half (1.5) tons, and shall not have more than two axles.” If a vehicle is not a “business vehicle,” it is separately defined as “heavy equipment,”: “Bulldozers, dumptrucks and similar pieces of large equipment and their accessories. The term includes *any vehicle associated with a business not included in the definition of business vehicle*. A trailer used for transporting heavy equipment is considered accessory to the equipment.” [Emphasis added] These definitions are not modifiable.

Therefore, in the PD-IP district, the on-site parking of business vehicles may not include those larger than two axles, as the applicant has requested. Further, heavy equipment uses are not listed as permitted or special exception uses in the PD-IP district.

Finally, the justification states that data center equipment may be provided on trailers that exceed two axles and these trailers are critical to the operations of the data center uses. Typically, data center equipment is enclosed within a building. It is unclear why data center equipment would be used/stored outside of the building and what function the referenced trailers would serve.

Applicant Response

It has been determined that this modification is not longer needed and is hereby withdrawn.

D. PROFFER STATEMENT

The following comments are provided for the draft proffer statement dated December 21, 2010:

1. In regard to the preamble, the individual parcel acreages and the total site area indicated are not consistent with the plan set (sheet 2). Please resolve all discrepancies regarding parcel acreages to be rezoned and total site area.

Applicant Response

The proffers have been revised to address these discrepancies.

2. In regard to the preamble, line 4, it is not clear why a portion of parcel 61/13 is being rezoned (i.e. 53.44 acres of 53.54 acres). The plan set seems to indicate that the whole parcel is being rezoned. Please revise or explain.

Applicant Response

The whole parcel is being rezoned and the plans and proffers have been revised accordingly.

3. In regard to proffer I.1., line 2, substantial conformance is indicated for sheet 6. However, on sheet 6, certain portions of the sheet are not proffered. Move non-proffered components to a new sheet.

Applicant Response

The non-proffered components have been moved to a new plan sheet.

4. In regard to proffer I.1., line 2, the plan set title is not consistent with the title on sheet 1. Further, the title in the proffer and on the plan set does not reflect all the applications that have been submitted. Please revise the title in the proffer and on the plan set accordingly.

Applicant Response

The plan set and proffers have been revised as requested.

5. In regard to proffer I.1., line 7, staff suggests the phrase “general development layout” be changed to “general layout” to be consistent with Section 6-1209(F).

Applicant Response

The proffers have been revised to address staff’s suggestion.

6. In regard to proffer I.1., line 8, staff suggests deleting the fourth sentence beginning, “The applicant shall have reasonable flexibility...”. Or, revise this sentence to be consistent with the wording used in Section 6-1209(F).

Applicant Response

The proffer language has not been revised as recommended and the Applicant would like to discuss the recommendation.

7. In regard to proffer I.1., no reference is made to the development of PD-IP permitted uses. Is the applicant proffering to only develop office uses? Please clarify. Further, in regard to the development of special exception uses, staff suggests the limitations of such be contained in conditions of approval, not the proffer statement.

Applicant Response

Maximum flexibility is required to attract high end users that need secure sites and may include other permitted PD-IP uses. The Applicant has proffered that the Subject Property will be limited to developing 10% of the gross floor area of stand alone commercial office uses, not including data center uses.

8. In regard to proffer I.1. and the zoning modifications, the listed sections are not consistent with the zoning modification matrix on Sheet 2. It should be "Sections 4-502, 4-506(B), 4-507(C) & (J)."

Applicant Response

The proffers have been revised to address these inconsistencies.

9. In regard to proffer II.2., line 9, staff suggests the word "Director" be changed to "Department."

Applicant Response

As requested, the proffers have been revised.

10. In regard to proffer II.3., line 2, staff suggests deleting the word "of."

Applicant Response

As requested, the proffers have been revised.

11. In regard to proffer II., staff suggests dedication of right-of-way also be provided for Cochran Mill Road, which is planned to be a minor collector road with a 70-foot right-of-way.

Applicant Response

The Applicant cannot agree to dedicate right-of-way for Cochran Mill Road as previously stated in this letter.

12. In regard to proffer II.4., dedication is required “as shown on the Concept Plan.” However, it is not clear from the Concept Plan what is to be dedicated and no dedication is proposed along Sycolin Road south of the Dulles Greenway. If 45-feet from centerline is to be dedicated across the entire property frontage, please state this. In addition, since the traffic study has not been provided, clearly state all improvements being proffered.

Applicant Response

The Concept Plan has been revised to remove the note for dedication of right-of-way for Sycolin Road. It was determined, at the meeting on February 10, 2011, with OTS, VDOT and Heidi Seibentritt, that due to the location of the previously mentioned Sycolin Pottery archaeological site #44LD1195, that additional dedication on the Subject Property would impact site #44LD1195.

Transportation improvements are addressed in the revised proffers.

13. In regard to proffer II.4., the Countywide Transportation Plan notes that additional right-of-way may be needed for Sycolin Road for bicycle/pedestrian facilities. Staff suggests the proffer provide for such additional right-of-way.

Applicant Response

The proffers have been revised to provide a 14-foot easement area with a 10-foot bicycle/pedestrian trail from the north side of the proposed entrance along Sycolin Road.

14. In regard to proffer II.4., a period is needed at the end of the second paragraph.

Applicant Response

As request, this correction has been made to the proffers.

15. In regard to proffer II.5.a. and b., the regional road contributions are offered only in relation to the square footage for office uses. Staff questions whether there is a contribution for by-right uses or other special exception uses.

Applicant Response

The proffers have been revised to provide a regional road contribution based upon gross square feet for all uses developed on the site which is to be paid at issuance of the zoning permit.

16. In regard to proffer II.5.a. and b., both paragraphs state that the required contribution “shall be in addition to the one-time regional road contribution...”. However, no such one-time regional road contribution has been proffered. Include a separate paragraph for this contribution.

Applicant Response
See above.

17. In regard to proffer II.5.a. and b., the contribution “shall be used for the installation of traffic signals...”. Since the contribution will be for regional road improvements, staff suggests this stipulation be removed. The County will determine how the funds are used.

Applicant Response
The regional road contributions are to be used within two miles of the Subject Property and are to be used at the discretion of the County for transportation improvements.

18. In regard to proffer II.5.b., line 1, insert the word “foot” after the word “square.”

Applicant Response
As requested, the addition has been made to the proffers.

19. In regard to proffer II.5.b., add the other special exception use requested with this application that will yield square footage (i.e. firearm range, indoor).

Applicant Response
As stated above, all uses will provide a regional road contribution based upon gross square feet.

20. In regard to proffer II.5.a. and b., it is not clear why two different amounts are being offered.

Applicant Response
The proffers have been revised to provide one amount for the regional road contributions based upon gross square feet of the use.

21. In regard to proffer III.6., specify a trigger as to when the applicant shall demonstrate incorporation of low impact development design and BMP techniques.

Applicant Response

The proffers have been revised to address this comment.

22. In regard to proffer III.7., staff suggests a provision requiring delineation of the TSA on each construction plans and profiles application and site plan application, as well as demonstration of the minimum 80% canopy.

Applicant Response

The proffers have been revised to address these comments.

23. In regard to proffer III.8., the "Management Buffer" needs to be labeled on sheet 4, or otherwise shown in the legend. Because they are both purple, it is difficult to tell the Management Buffer from the SCVB. Staff suggests these be clearly labeled and depicted with different colors. Finally, on sheet 5, the Management Buffer is difficult to see against the topography lines. Revise accordingly.

Applicant Response

The line for the Management Buffer is a short dashed purple line compared to the SVCB which is a longer dashed blue line. The Management Buffer line has been darkened on Sheets 3, 4 and 5 to make it more visible.

24. In regard to proffer III.9., line 1, please change "Corp" to "Corps."

Applicant Response

As requested this correction has been made.

25. In regard to proffer III.9., line 3, please change "construction plan" to "construction plans and profiles."

Applicant Response

As requested this correction has been made.

26. In regard to proffer III.9., line 3, please insert the phrase ", whichever is first in time," after the word "approval."

Applicant Response

As requested the insertion has been made.

27. In regard to proffer III.12., other than location, the provisions of this proffer are not enforceable.

Applicant Response

The proffer has been revised to address enforceability.

28. In regard to proffer III.12., the phrase “and the location behind buildings” does not make sense. Please clarify.

Applicant Response

The proffer has been revised to address this comment.

29. In regard to proffer III.13., please change “At the time of” to “Prior to.”

Applicant Response

As requested, the change has been made.

30. In regard to proffer III.15., 1st paragraph, line 1, please change “the” to “all.”

Applicant Response

As requested, the change has been made.

31. In regard to proffer III.15., 2nd paragraph, line 6, staff suggests the phrase “or by County Staff” be deleted.

Applicant Response

ERT Staff specifically requested to include County Staff in this proffers, since some of the County Staff have the credentials to provide the needed LEED certification evaluation.

32. Delete proffer III.16.

Applicant Response

This proffer has been deleted as requested,

33. In regard to proffer IV.19., 1st paragraph, line 1, staff suggests “ground disturbance” be changed to “land disturbing activities.”

Applicant Response

As requested, the change has been made.

34. In regard to proffer IV.19., 1st paragraph, line 1, please change the word “near” to a more definite figure.

Applicant Response

The proffer has been revised to state within 50 feet instead of near.

35. In regard to proffer IV.19., 1st paragraph, line 3, please change “construction” to “any land disturbing activities.”

Applicant Response

As requested, the proffer has been revised accordingly.

36. In regard to proffer IV.19., 2nd paragraph, last line, delete the quotation marks and insert a period.

Applicant Response

As requested, the correction has been made.

37. In regard to proffer IV.20., line 1, staff suggests the phrase “one-time cash” be inserted prior to contribution.

Applicant Response

The insertion has been made as requested.

38. In regard to proffer IV.20., staff suggests the second sentence be replaced with the following sentence: “This contribution shall be designated for the development of a trail connection between the trail system planned within the Philip A. Bolen Memorial Park and the W&OD Regional Park Trail.”

Applicant Response

The proffer has been revised as requested.

39. In regard to proffer VI.22., in the last line, change “2010” to “2011.”

Applicant Response

The proffer has been revised as requested.

E. PLAT NOTES/MISCELLANEOUS

1. In the statement of justification received January 26, 2011, change “CMPT 2010-0034” to “CMPT 2010-0014.”

Applicant Response

The plans have been revised to list the correct application number for the Commission Permit.

2. In the title on sheet 1 and title block on all sheets, list all applications. SPEX 2010-0034 is missing.

Applicant Response

All of the applications are now listed on the plans.

3. On sheet 1, review the address for Sycolin Corner, LLC. It is not consistent with County Records. (Prior comment D.1.)

Applicant Response

The address on the plans for Sycolin Corner has been corrected.

4. In the List of Drawings on sheet 1, the titles listed for sheets 1, 4 and 5 are not consistent with the title blocks on those sheets. Revise accordingly.

Applicant Response

The list of drawings has been corrected to be consistent.

5. In the list of Reference Plans on sheet 1, update the status of application numbers 1, 2, 3, and 5. Additionally, it is noted that SPEX 2009-0027 is not listed, which was approved in conjunction with ZMAP 2009-0003/ZMAP 2009-0004.

Applicant Response

The requested corrections and updates have been revised on the plans.

6. In the vicinity map on sheet 1, the rezoning plat on sheet 2, and sheets 4 and 5, update the surrounding zoning.

Applicant Response

The surrounding zoning has been updated on the plan sheets as requested.

7. In regard to sheet 2 and as noted in the proffer comments above, the acreages (overall and individual parcel) in the notes, tables, and plat on sheet 2 are not consistent with the statement of justification or the proffer. Remove all discrepancies regarding the stated acreages and revise the calculations if necessary.

Applicant Response

The revised proffers and plans now correctly list the acreages.

8. Under Concept Plan notes on sheet 2, delete note 1. The zoning tabulations table does not provide the type, location and nature of land use or building type information.

Applicant Response

As requested, this note has been deleted.

9. Under Concept Plan notes on sheet 2, in note 4, correct the title of the reference sheet so that it matches sheet 5.

Applicant Response

The note has been corrected, as requested.

10. Under Concept Plan notes on sheet 2, in note 8.B., remove the reference to structures. Change "vicinity plan" to "vicinity map."

Applicant Response

The note has been corrected as requested.

11. Under Concept Plan notes on sheet 2, delete note 11.

Applicant Response

Note 11 on Sheet 2 has been deleted.

12. Under the Information Tabulation Notes on sheet 2, delete note 4. Or, change the phrase “all minimum requirements” to “lot and building requirements.” (Prior comment D.2.)

Applicant Response

The note has been revised as requested.

13. Under the open space map on sheet 2, the note references “net land area.” However, there is no indication as to what is excluded to reach the net land area. Revise this note to reference “buildable area” to be consistent with the Zoning Ordinance.

Applicant Response

The notes have been revised as requested.

14. In the zoning modification matrix, change “4-506” to “4-506(B).”

Applicant Response

The correction has been made to the plans, as requested.

15. On sheets 3 through 6, remove notes and labels referring to ZMAP 2009-0004 as pending.

Applicant Response

This note has been removed.

16. Reference should be made to the indoor firearm range on the special exception plat (sheet 4). (Prior comment D.7.)

Applicant Response

A note has been added to Sheet 4 to state that the indoor firing range/archery range uses shall not be located in Land Bays A, B or C which are adjacent to residential uses.

17. On sheets 4 and 5, the potential water storage tank/water treatment plant is not within an area designated for potential building. Please create building/parking envelopes for these potential locations.

Applicant Response

Sheets 4 and 5 have been revised to show the potential water storage tank/water treatment plant locations within building/parking envelopes, as requested.

18. In regard to note 8 on sheet 4, the applicant will be subject to the buffer yard requirements of Section 5-1400. Amend this note to state compliance with Section 5-1400. Additionally, a type 3 buffer is required where the property fronts an existing or planned four-lane divided roadway.

Applicant Response

The note has been revised as requested.

19. A number of the labels on sheet 5 are difficult to read because of the multiple overlays. Ensure that all text can be easily read.

Applicant Response

The elevation labels have been lightened to make it easier to read the other labels.

**LOUDOUN COUNTY DEPARTMENT OF BUILDING AND DEVELOPMENT –
ENVIRONMENTAL REVIEW TEAM (WILLIAM MARSH, 1/26/2011)**

1. Staff encourages consideration of a timing mechanism for construction of the proposed uses in conjunction with construction of the adjacent, approved rezoning application for Green Energy Partners. If these applications are approved and built without the Green Energy Partners facility being built, several important energy and water conservation opportunities would be lost.

Applicant Response

The Green Energy Partners power generation plant and the Stonewall Secure Business Park are separate entities and will develop on their own individual timelines. The Applicant appreciates the synergy between the two projects and is actively pursuing an interactive power consumer/producer relationship

that can utilize the benefits of the combined cycle power generation with combined heating and cooling capabilities.

2. The Countywide Transportation Plan depicts an alignment for Relocated Cochran Mill Road in the project area. The Concept Development Plan (CDP) should be revised to reflect this alignment.

Applicant Response

The Applicant has not depicted the alignment of the relocated Cochran Mill Road for the following reasons. Land use in this area has changed substantially since the realignment of Cochran Mill Road was placed on the Countywide Transportation Plan ("CTP"). At that time, the area along Cochran Mill Road was envisioned to be developed with residential uses. The other major land owners along Cochran Mill Road: Luck Stone (quarry uses), Philip A. Bolen Memorial Park (County owned) and Green Energy Partners will not use Cochran Mill Road for entrance to their facilities. The subject application for Stonewall Secure Business Park will not use Cochran Mill Road.

Crosstrail Boulevard which has been constructed from Route 7, near Wegmans grocery store to the southwest is planned to be constructed to intersect with Sycolin Road, the Dulles Greenway and Evergreen Mills Road. The traffic that may have used Cochran Mill Road with the exception of the industrial uses is now using Crosstrail Boulevard.

The Applicant has limited the development of the Subject Property to not exceed 3,500,000 square feet until such time as Crosstrail Boulevard is completed between Sycolin Road and the Dulles Greenway.

3. The applicant acknowledges the location of this project within the Loudoun Water service area. Staff recommends the pursuit of utility agreements that would connect sanitary sewer service to the Town of Leesburg. Otherwise, sanitary sewer service provided by Loudoun Water would require force main installation for treatment at more remote reclamation facilities. The Leesburg facility is closer and could more easily convey effluent by gravity.

Applicant Response

The Applicant agrees that the topography of the site allows for gravity sewer toward planned facilities of the Town and will work with Loudoun Water and the Town of Leesburg to pursue gravity sanitary sewer flow options.

4. Augment tree save area proffer language, draft Proffer III.7, to address permanent conservation. Introductory paragraph in Proffer III.9 of approved ZMAP-2009-0005 would satisfy this recommendation.

Applicant Response

The proffer has been revised to include an introductory paragraph similar to the one suggested.

5. Staff recommends a wider tree conservation area adjacent to an existing stream on the northwest corner of the project area. The existing channel flows north into Sycolin Creek. Staff encourages preservation of the forest canopy within 75 feet of the channel to anchor the stream banks against further erosion. The current CDP depicts tree conservation only on the east bank of the channel.

Applicant Response

The Concept Plan has been revised to show the existing tree canopy in the area mentioned.

6. ERT supports Planning Department recommendations for maintaining a higher ratio of open space as natural open space. Accordingly, staff recommends adjustments to draft proffers as follows:
 - Adjusting proffer III.7 to establish a higher tree save threshold. Staff suggests 90 percent.
 - Removing “exception” uses from proffer III.8 including road construction, bridge installation, and stormwater management.
 - Committing to tree conservation areas for the possible water treatment facility and tower sites that are not chosen for those uses.

Applicant Response

The draft proffers have been revised to address the expansion of the TSAs in the areas that are not utilized for the water storage tank and water treatment facilities. A minimum of 80% of the tree canopy in the tree save areas with replacement of such lost tree canopy if it is not attainable in the TSA's will be recaptured on the Subject Property in locations to be designated at the discretion of the Applicant and in consultation with the County Urban Forester. Final design of the site including stormwater management, sewer, water and effluent lines require engineered placement for proper function and need to be placed in locations where they can work for their intended purposes.

7. Staff also recommends that the isolated parcel south of the Greenway be included in tree conservation.

Applicant Response

The Concept Plan has been revised to include the parcel south of the Dulles Greenway in the TSAs.

8. Staff seeks to minimize disturbance to moderate steep slopes due to utilities, consistent with the purpose and intent of Zoning Ordinance Section 5-1508. Section 7.700 of the Facilities Standards Manual also requires placement of all utility structure beneath sidewalk easements or road rights of way where practical. The applicant has offered to meet to further discuss options. Staff requests a meeting prior to consideration by the Planning Commission.

Applicant Response

The Applicant met with William Marsh and discussed the placement of utilities beneath sidewalks and roads to the greatest extent possible to minimize disturbance to moderately steep slopes and would agree to a condition of approval to that effect.

9. The applicant has included a note on Sheet 6 of the CDP to state that existing trees and vegetation will be retained and supplemented with plantings to meet the landscape buffer requirements within the 50-foot buffer/perimeter area. Please clarify that this is a proffered statement, given that part of Sheet 6 is for informational purposes only.

Applicant Response

The landscape buffer/perimeter treatment areas are shown on the Concept Plan and a proffer has been added to address these areas.

10. The applicant will meet noise standards required in Zoning Ordinance performance standards, ZO Section 5-1507. Staff continues to recommend establishment of noise standards for this project area that, in coordination with sources of noise related to the approved power plant use, meet noise abatement criteria for existing, adjacent residential uses and park uses found in the sound level table on page 5-45 of the Revised General Plan. One suggestion is a plan to stagger maintenance testing of data center back-up generators during daylight

hours so as not to coincide with “peaker” combustion turbine operation on the Green Energy Partners site.

Applicant Response

The Applicant has proffered noise attenuation through the use of baffles, sound walls and proper placement of the generators with respect to residential uses. The Applicant would agree to a condition of approval to coordinate with the operators of the Green Energy Park to stagger maintenance testing during daylight hours of the back-up generators to not coincide with the peaker combustion turbine operation.

11. Staff recommends bicycle-pedestrian access to the site at the secure entry locations provided for vehicles. The applicant is agreeable to non-motorized use plans internal to the project area. Staff also recommends amenities within buildings allowing for bicycle storage, changing and shower facilities, consistent with travel demand management strategies encouraged in Chapter 3 of the Countywide Transportation Plan.

Applicant Response

A bicycle-pedestrian path has been added to the Concept Plan along Sycolin Road from the proposed entrance to the Stonewall Secure Business Park north along the frontage of Sycolin Road. The path has not been shown south of the Stonewall entrance due to the existence and protection of the Sycolin Pottery Archaeological site #44LD1195.

12. Staff encourages a more specific commitment to rainwater harvesting as a low impact development commitment in Proffer III.6. Harvesting creates a redundant water source for non-potable water use on site, reducing dependence on either Loudoun Water potable water or Town of Leesburg reclaimed water.

Applicant Response

The Applicant will utilize LID techniques in the development of the Subject Property including grass ditch line drainage, tree save areas, buffer areas and storm water management. In the effort to maintain flexibility of design, these water management. In the effort to maintain flexibility of design, these techniques will be determined at site plan and based upon numerous engineering criteria such as clearing limits, tree save areas and depth of rock.

The LID design and BMPs will include the appropriate site-specific water control techniques recommended in the latest edition of the Virginia

Stormwater Management Handbook and the FSM. These LID design and BMP techniques shall be implemented through the site plan process.

13. Staff continues to encourage a design commitment for post-construction best management practices (BMP) that will prevent the post-development peak discharge rate and volume from exceeding the pre-development peak discharge rate and volume for the 1- and 2- year, 24-hour design storms. Said design commitment would earn a “regional priority credit” with LEED certification and help implement Proffer III.15.

Applicant Response

The Applicant is aware of pending regulation changes from the Virginia Department of Conservation Resources and the U.S. Environment Protection Agency on storm water management and total maximum daily loads that are likely to be adopted. To avoid conflicts between the proffers and future regulations, each site plan will have to meet the regulations in place at that time.

14. Staff commends the applicant for commitments made for wetland mitigation, LEED certification, and turbidity testing.

Applicant Response

Acknowledged.

Specific to substation special exception

15. Staff recommends a condition of approval that will commit to oil/water separation and secondary containment for hotspot uses in the substation area. Similar commitments have been made with prior special exception applications for substations. The intent of the commitment is to contain and treat any spill or leakage of mineral oil typically installed for worker safety on substation sites.

Applicant Response

The Applicant can agree to a condition of approval for oil/water separation and secondary containment for hotspot uses in the utility substation area.

LOUDOUN COUNTY OFFICE OF TRANSPORTATION SERVICES (GEORGE PHILLIPS, 1/27/2011)

Review of Applicant's Traffic Study

The Applicant has submitted a new traffic study (dated December 2010) for the proposed applications. The study documents existing (2010) traffic volumes and Level of Service (LOS), forecast year 2013 background (i.e. without this development) traffic conditions, forecast year 2013 total traffic (existing + approved + Phase 1) conditions, forecast year 2015 background traffic (existing + approved + Phase 1) conditions, forecast year 2015 total traffic (existing + approved + Phase 1 + Phase 2) conditions and, forecast year 2020 background and total traffic conditions with full site build out. Design year 2030 total traffic conditions are also documented in the study. For year 2020 and future conditions, the study includes scenarios both with and without Crosstrail Boulevard in place between the Dulles Greenway and Russell Branch Parkway. The traffic study assumes the development of 5,000,000 total square feet of non-residential uses on the site in three phases as follows: Phase 1 (2013) totals 900,000 square feet of Data Center uses and 100,000 square feet of Office uses; Phase 2 (2015) totals 1,800,000 square feet of Data Center and 200,000 square feet of Office uses; and Phase 3 2020 totals 4,500,000 square feet of Data Center and 500,000 square feet of Office uses.

Existing (2010) Traffic Volumes and Level of Service (LOS)

The existing roadway network (existing lane use and traffic control) is illustrated on Figure 4 in **Attachment 2**. Existing traffic volumes and intersection LOS are shown on Figures 5, 6, 7 and 8 in **Attachments 3, 4, 5 and 6**. Table 2 (**Attachment 7**) summarizes the peak hour LOS for each study intersection. Table 2 indicates that several intersections are currently operating below LOS D in one or both peak hours, as noted below:

- The Route 15/Masons Lane intersection (#1) operates at LOS E overall during both peak hours.
- The Masons Lane/Evergreen Mills Road (#2) intersection operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road (#5) intersection operate at LOS F overall during both peak hours.
- The Hope Parkway/Sycolin Road (#6) intersection eastbound approach operates at LOS E during the AM peak hour and LOS F during the PM peak hour.

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- The Sycolin Road/Tavistock Drive intersection (#10) westbound approach operates at LOS E during both peak hours.
 - The Sycolin Road/Miller Drive intersection (#11) eastbound approach operates at LOS F during the PM peak hour.
 - The Sycolin Road/ Loudoun Center Place intersection (#12) westbound approach operates at LOS F during the PM peak hour.
 - The Dulles Greenway westbound On-ramp/Belmont Ridge Road intersection (#21) eastbound approach operates at LOS E during the PM peak hour.

Forecast Year 2013 Background (Without Development) Traffic Conditions

The 2013 forecasted background peak hour traffic volumes, assumed lane use and forecasted intersection LOS are illustrated in Figures 9, 10, 11 and 12 in **Attachments 8,9,10 and 11**. Table 3 (**Attachment 12**) summarizes the peak hour LOS for each study intersection. Table 3 indicates that several intersections are forecast to operate below LOS D in one or both peak hours as noted below:

- The Masons Lane/Evergreen Mills Road (#2) intersection is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) includes LOS F during both peak hours for the northbound and southbound approaches and LOS E for the westbound approach during the PM peak hour.
- The Sycolin Road/Tavistock Drive (#10) intersection includes LOS F during both peak hours for the westbound approach.
- The Sycolin Road /Miller Drive intersection (#11) includes LOS F for the eastbound and northbound approaches during the PM peak hour.
- The Sycolin Road/Loudoun Center Place intersection (#12) includes LOS F for the westbound approach during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#18) includes LOS E for the westbound approach during the PM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) is forecast to operate at LOS E for the westbound approach during the PM peak hour.

Trip Generation

Table 4 in the Applicant's traffic study (**Attachment 13**) indicates that Phase 1 of the proposed development (2013) would generate 390 AM peak hour, 425 PM peak hour, and 2,610 daily weekday vehicle trips. Table 7 in the Applicant's traffic study (**Attachment 14**) indicates that Phase 2 of the proposed development would generate

an additional 655 AM peak hour, 690 PM peak hour, and 4,330 daily weekday vehicle trips for a total of 1,045 AM peak hour, 1,115 PM peak hour and 6,940 daily vehicle trips. Table 13 in the Applicant's traffic study (**Attachment 15**) indicates that the proposed development would generate a cumulative total of 1,670 AM peak hour, 1,810 PM peak hour, and 10,995 daily weekday vehicle trips at build out in 2020. This information is based on rates and equations from the Trip Generation Manual, 8th Edition, Institute of Transportation Engineers (ITE) and specific trip generation data for Data Centers summarized by Wells & Associates.

Trip Distribution

Figure 13 in the Applicant's traffic study (**Attachment 16**) estimates trip distribution information for all phases based on existing travel patterns and origin/destination patterns. The site traffic is distributed with 43% of the traffic approaching from the north and west, 3% approaching from the southwest and 42% approaching from the east and southeast, and 15% approaching from the northeast.

Forecast (Year 2013) Total Traffic Conditions With Phase 1 Development

Phase 1 site-generated trip assignments and the 2013 forecasted total with development peak hour traffic volumes, assumed lane use and traffic control and forecasted intersection LOS are illustrated in Figures 14,15,16,17,18 and 19 in **Attachments 17,18,19,20,21 and 22**. Table 5 (**Attachment 23**) summarizes the peak hour LOS for each study intersection. Table 5 indicates that several intersections are forecast to operate below LOS D during one or both peak hours as noted below:

- Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) includes LOS F during both peak hours for the northbound and southbound approaches and LOS E for the westbound approach during the PM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) westbound approach is forecast to operate at LOS F during both peak hours. The eastbound approach is forecast to operate at LOS E during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) includes LOS F for the eastbound approach during the PM peak hour.
- The Sycolin Road/Loudoun Center Place intersection (#12) include LOS F for the westbound approach during the PM peak hour.

- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2015) Background Traffic Conditions (With Phase 1 Development)

The 2015 forecasted background (including Phase 1 development) peak hour traffic volumes, assumed lane use and traffic controls, and forecasted intersection LOS are illustrated in Figures 20, 21, 22 and 23 in **Attachments 24, 25, 26 and 27**. Table 6 (**Attachment 28**) summarizes the peak hour LOS for each study intersection. Table 6 indicates that several intersections are forecast to operate below LOS D during one or both peak hours as noted below:

- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) includes LOS F during both peak hours for the northbound and southbound approaches. The westbound approach is forecast to operate at LOS E during the PM peak hour. The eastbound approach is forecast to operate at LOS E during the AM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) includes LOS F during both peak hours for the westbound approach and LOS E for the eastbound approach during the AM peak hour and LOS F during the PM peak hour.
- The Sycolin Road/Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS F during the PM peak hour.
- The Sycolin Road/ Loudoun Center Place (#12) intersection westbound approach is forecast to operate at LOS F during the PM peak hour.
- The Sycolin Road/Shreve Mill Road intersection (#18) eastbound approach is forecast to operate at LOS E during the PM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2015) Total Traffic Conditions with Phase 2 Development

Phase 2 site-generated trip assignments and the 2015 forecasted total Phase 2 development peak hour traffic volumes, assumed lane use and traffic controls and forecasted intersection LOS are illustrated in Figures 24,25,26,27,28 and 29 in **Attachments 29,30,31,32,33 and 34**. Table 8 (**Attachment 35**) summarizes the peak hour LOS for each study intersection. Table 8 indicates that several intersections are forecast to operate below LOS D all during one or both peak hours, as noted below:

- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F during both peak hours for the northbound and southbound approaches and LOS E on the westbound approach during the AM peak hour.
- The Sycolin Road/Tavistock Drive intersection (#10) is forecast to operate at LOS F during both peak hours on the eastbound and westbound approaches.
- The Sycolin Road/Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Sycolin Road/Loudoun Center Place (#12) intersection westbound approach is forecast to operate at LOS F during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#13) westbound approach is forecast to operate at LOS E during the PM peak hour.
- The Sycolin Road/Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS E during the AM peak hour.
- The Shreve Mill/Sycolin Road intersection (#18) eastbound approach is forecast to operate at LOS F during both peak hours.
- The Gulick Mill Road/Sycolin Road intersection (#19) eastbound approach is forecast to operate at LOS E during the PM peak hour.
- The Sycolin Road/Belmont Ridge Road intersection (#20) westbound and southbound approaches is forecast to operate at LOS E during the PM peak hour. The northbound approach is forecast to operate at LOS E during the AM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2020) Background Traffic Conditions (Without Crosstrail Boulevard)

The 2020 forecasted background (including Phase 1 and Phase 2 development) peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS without Crosstrail Boulevard in place are illustrated in Figures 30,31,32 and 33 in **Attachments 36,37,38 and 39**. Table 9 (**Attachment 40**) summarizes the peak hour LOS for each study intersection. Table 9 indicates that several intersections are forecast to operate below LOS D overall during one or both peak hours, as noted below:

- The Masons Lane/Route 15 intersection (#1) northbound approach is forecast to operate at LOS E during the AM peak hour.

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- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
 - The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
 - The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
 - The Sycolin Road/Tavistock Drive intersection (#10) eastbound and westbound approaches are forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/ Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road /Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS F during the PM peak hour.
 - The Shreve Mill Road/Evergreen Mills Road westbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road /Shreve Mill intersection (#13) eastbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS F during the AM peak hour and LOS E during the PM peak hour.
 - The Gulick Mill Road/Sycolin Road intersection (#19) eastbound approach is forecast to operate at LOS E during the PM peak hour.
 - The Sycolin Road /Belmont Ridge Road intersection (#20) westbound and southbound approaches are forecast to operate at LOS E during both peak hours. The eastbound approach is forecast to operate at LOS F during the AM peak hour and LOS E during the PM peak hour.
 - The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.

Forecast (Year 2020) Traffic Conditions At Site Buildout (Without Crosstrail Boulevard)

Phase 3 site-generated trip assignments and the 2020 forecasted total with full site build out peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS are illustrated in Figures 34,35,36, 37,38, and 39 in **Attachments 41,42,43,44,45 and 46**. Table 11 (**Attachment 47**) summarizes the peak hour LOS for each study intersection. Table 11 indicates that several intersections are forecast to operate below LOS D during one or both peak hours as noted below:

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- The Masons Lane/Route 15 intersection (#1) northbound approach is forecast to operate at LOS E during the AM peak hour.
 - The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F during both peak hours.
 - The Leesburg Bypass/Sycolin Road intersection is forecast operate at LOS F overall during both peak hours.
 - The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
 - The Sycolin Road/Tavistock Drive intersection (#10) eastbound and westbound approaches is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road /Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
 - The Shreve Mill Road/Evergreen Mills Road intersection (#13) westbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/ Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/Shreve Mill intersection (#18) is forecast to operate at LOS E overall during both peak hours.
 - The Gulick Mill Road/Sycolin Road intersection (#19) eastbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
 - The Sycolin Road /Belmont Ridge Road intersection (#20) westbound approach is forecast to operate at LOS E during both peak hours. The eastbound approach is forecast to operate at LOS F during the PM peak hour. The northbound and southbound approaches are forecast to operate at LOS E during the PM peak hour.
 - The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during both peak hours.
 - The Greenway Eastbound Off ramp/Belmont Ridge Road intersection (#22) eastbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast (Year 2020) Background Traffic Conditions (With Crosstrail Boulevard)

The 2020 forecasted background (including Phase 1 and Phase 2 development) peak hour traffic volumes, assumed lane use and traffic controls, and forecasted intersection LOS with Crosstrail Boulevard in place between the Dulles Greenway and Russell Branch Parkway are illustrated in Figures 40,41,42 and 43 in **Attachments 48,49,50 and 51**. Table 12 (**Attachment 52**) summarizes the peak hour LOS for each study intersection. Table 12 indicates that several intersections are forecast to operate below LOS D overall during one or both peak hours, as noted below:

- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Tavistock Drive intersection (#10) is forecast to operate at LOS E during both peak hours.
- The Sycolin Road/Miller Drive intersection (#11) is forecast to operate at LOS F overall during both peak hours.
- The Sycolin Road/Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The Shreve Mill Road/Evergreen Mills Road intersection (#13) westbound approach is forecast to operate at LOS F during both peak hours.
- The Sycolin Road/Cochran Mill Road intersection (#17) westbound approach is forecast to operate at LOS F during the AM peak hour.
- The Sycolin Road/Shreve Mill intersection (#18) eastbound approach is forecast to operate at LOS E during both peak hours.
- The Sycolin Road /Belmont Ridge Road intersection (#20) westbound and southbound approaches are forecast to operate at LOS E during both peak hours. The eastbound approach is forecast to operate at LOS F during the AM peak hour.
- The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS E during the AM peak hour and LOS F during the PM peak hour.

Forecast (Year 2020) Traffic Conditions at Site Buildout (With Crosstrail Boulevard)

Phase 3 site-generated trip assignments and the 2020 forecasted total with full site build out peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS with Crosstrail Boulevard in place between the Dulles Greenway and Russell Branch Parkway are illustrated in Figures 44,45,46,47,48 and 49 in **Attachments 53,54,55,56,57 and 58**. Table 14 (**Attachment 59**) summarizes the peak hour LOS for each study intersection. Table 14 indicates that several intersections are forecast to operate below LOS D during one or both peak hours, as noted below:

- The Masons Lane/Route 15 intersection (#1) northbound approach is forecast to operate at LOS E during the AM peak hour.

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- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
 - The Leesburg Bypass/Sycolin Road intersection (#5) is forecast to operate at LOS F overall during both peak hours.
 - The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.
 - The Sycolin Road/Tavistock Drive intersection (#10) is forecast to operate at LOS F overall during both peak hours.
 - The Sycolin Road/Miller Drive intersection (#11) is forecast to operate at LOS F overall during both peak hours.
 - The Sycolin Road/Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS F during both peak hours.
 - The Shreve Mill Road/Evergreen Mills Road (#13) westbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/Cochran Mill Road intersection (#17) is forecast to operate at LOS E overall during both peak hours.
 - The Sycolin Road/Shreve Mill intersection (#18) is forecast to operate at LOS E overall during both peak hours.
 - The Sycolin Road /Gulick Mill Road intersection (#19) eastbound approach is forecast to operate at LOS F during the PM peak hour.
 - The Sycolin Road /Belmont Ridge Road intersection (#20) is forecast to operate at LOS F overall during both peak hours.
 - The Greenway Westbound On-ramp/Belmont Ridge Road intersection (#21) westbound approach is forecast to operate at LOS F during both peak hours.
 - The Sycolin Road/Site Driveway intersection (#26) westbound approach is forecast to operate at LOS F during the PM peak hour.

Forecast Horizon Year (2030) Total Traffic Conditions (With Crosstrail Boulevard)

The 2030 forecasted total peak hour traffic volumes, assumed lane use and traffic control, and forecasted intersection LOS are illustrated in Figures 50, 51, 52 and 53 in **Attachments 60, 61, 62 and 63**. Table 15 (**Attachment 64**) summarizes the peak hour LOS for each study intersection. Table 15 indicates that several intersections are forecast to operate below LOS D overall during one or both peak hours, as noted below:

- The Masons Lane/Route 15 intersection (#1) is forecast to operate at LOS F overall during both peak hours.
- The Masons Lane/Evergreen Mills Road intersection (#2) is forecast to operate at LOS F overall during both peak hours.
- The Route 7/Battlefield Parkway intersection (#8) is forecast to operate at LOS F overall during both peak hours.

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- The Shreve Mill Road/Evergreen Mills Road intersection (#13) is forecast to operate at LOS F overall during both peak hours.
 - The Sycolin Road/Belmont Ridge Road intersection (#20) is forecast to operate at LOS F overall during both peak hours.
 - The Battlefield Parkway/Sycolin Road intersection is forecast to operate at LOS E overall during both peak hours.
 - Greenway Westbound On-Ramp/Belmont Ridge Road intersection (#21) is forecast to operate at LOS E overall during both peak hours.
 - Greenway Eastbound Off-ramp/Belmont Ridge Road intersection (#22) is forecast to operate at LOS E overall during both peak hours.
 - The Sycolin Road/Tavistock Drive intersection (#10) eastbound approach is forecast to operate at LOS F during the PM peak hour.
 - The Sycolin Road/ Miller Drive intersection (#11) eastbound approach is forecast to operate at LOS E during the PM peak hour.
 - The Sycolin Road /Loudoun Center Place intersection (#12) westbound approach is forecast to operate at LOS E during the PM peak hour.

Status of Transportation Comments

Staff comments from the second OTS referral (September 28, 2010) as well as the Applicant's response, and current issue status are provided below.

Overall Staff Comment (Second Referral September 28, 2010): The Applicant has not responded to the issues previously raised in the original (April 17, 2009) OTS referral. These responses, as well as the provision of a revised traffic study, will be necessary for further OTS review. Based on the information submitted, OTS comments in this referral are limited to review of the Applicant's concept plan and special exception plat.

Applicant Response (December 20, 2010): *The comments in this referral are addressed or will be addressed by the enclosed Transportation Impact Analysis dated December, 2010, and prepared by Kittelson & Associates.*

Current Issue Status: The overall issue of the provision of a traffic study has been resolved. The current status of individual comments contained in the second OTS referral (September 28, 2010) are noted below.

1. Initial Staff Comment (Second Referral September 28, 2010): In the Applicant's response letter, it is noted that a revised traffic study will be submitted for the proposed PD-IP zoning district and proposed special exception uses. OTS looks forward to receiving this information so that a more detailed review can be made. OTS notes that the scope of this revised study was agreed to with the Applicant's traffic consultant in May, 2010.

Applicant Response (December 20, 2010): The comments in this referral are addressed or will be addressed by the enclosed Transportation Impact Analysis dated December, 2010, and prepared by Kittelson & Associates.

Current Issue Status: The issue of the provision of a traffic study has been resolved.

2. Initial Staff Comment (Second Referral September 28, 2010): The proposed concept plan does not incorporate the planned realignment of Cochran Mill Road (Route 653) through the site to Sycolin Road (Route 643). A review of the 2010 CTP shows that the planned realignment will traverse this site (**Attachment 2**). It is recommended that the applicant agree to accommodate this alignment (70-foot right-of-way (ROW)) in conformance with the 2010 CTP.

Current Issue Status: The planned realignment of Cochran Mill Road per the 2010 CTP is not shown on the current plan. Issue not resolved.

Applicant Response

The Applicant has not depicted the alignment of the relocated Cochran Mill Road for the following reasons. Land use in this area has changed substantially since the realignment of Cochran Mill Road was placed on the Countywide Transportation Plan ("CTP"). At that time, the area along Cochran Mill Road was envisioned to be developed with residential uses. The other major land owners along Cochran Mill Road: Luck Stone (quarry uses), Philip A. Bolen Memorial Park (County owned) and Green Energy Partners will not use Cochran Mill Road for entrance to their facilities. The subject application for Stonewall Secure Business Park will not use Cochran Mill Road.

Crosstrail Boulevard which has been constructed from Route 7, near Wegmans grocery store to the southwest is planned to be constructed to intersect with

Sycolin Road, the Dulles Greenway and Evergreen Mills Road. The traffic that may have used Cochran Mill Road with the exception of the industrial uses is now using Crosstrail Boulevard.

The Applicant has limited the development of the Subject Property to not exceed 3,500,000 gross square feet until such time as Crosstrail Boulevard is completed between Sycolin Road and the Dulles Greenway.

3. Initial Staff Comment (Second Referral September 28, 2010): The 2010 CTP calls for Sycolin Road (Route 643) to be improved to a four-lane divided (U4M) section. The proposed entrance onto Sycolin Road (Route 643) needs to be constructed to VDOT standards/requirements including locating the proposed entrance relative to future median breaks, the provision of turn lanes and the demonstration of adequate sight distance. The new traffic study needs to account for the proposed security gate which will hinder the free flow of incoming site traffic from Sycolin Road (Route 643) at the proposed entrance. This may require additional measures to address the delay with enhanced facilities such as longer length turn lanes.

Current Issue Status: The Applicant notes in the draft proffers that the entrance on Sycolin Road will be in conformance with VDOT minimum standards. However, OTS understands that the location of the proposed site entrance may conflict with an existing archaeological site (#44LD1195) and may need to be relocated. Further discussion with County and VDOT staff is recommended. Also, the traffic study does not appear to account for the proposed security gate which will hinder free flow of incoming site traffic from Sycolin Road (Route 643) at the proposed entrance. It is not clear what additional facilities may be needed to address this issue. Further clarification is needed from the Applicant.

Applicant Response

The proposed entrance will be located to not impact the Sycolin Pottery Archaeological Site #44LD1195 and a proffer has been added to resolve the concern of stacking of vehicles on-site to not impact the free flow of traffic on Sycolin Road.

4. Initial Staff Comment (Second Referral September 28, 2010): The 2010 CTP depicts a future grade-separated interchange on the Dulles Greenway at the westernmost

crossing of Sycolin Road (Route 643) south of the proposed site entrance location (see **Attachment 2**). The Applicant should coordinate with TRIP II (owners of the Dulles Greenway) regarding this yet-to-be-designed interchange and acknowledge that ROW may be needed in the future.

Current Issue Status: Not addressed. Issue not resolved.

Applicant Response

The Dulles Greenway plan does not include an interchange at this location. The installation of an interchange at this location would be problematic with the existing topography.

5. Initial Staff Comment (Second Referral September 28, 2010): The Applicant proposes a private access to Gant Lane (Route 652) at the north east portion of the site. Gant Lane is a narrow, unpaved road in the vicinity of the site that includes a concrete culvert over the Sycolin Creek with no guard rails. In order to access this facility with site traffic, it is recommended that the Applicant commit to construction of an improved section of Gant Lane (Route 652) south from Cochran Mill Road (Route 653) to the proposed entrance. This improvement should be a paved, two-lane rural section (consistent with VDOT standards) and needs to include an improved bridge crossing over Sycolin Creek. As an alternative, the Applicant can also explore obtaining access to the new private road crossing (**Attachment 3**) of Sycolin Creek proposed as part of the pending Luck Stone and Loudoun Water Treatment Plant applications.

Current Issue Status: Not addressed. Issue not resolved. OTS notes that the Gant Lane access is identified in the traffic study as being for emergency access only, but no notes to that effect are listed on the plat. Clarification as to the function of this entrance is necessary.

Applicant Response

The note on the Concept Plan has been revised to state that this access to Gant Lane is for emergency use only.

6. Initial Staff Comment (Second Referral September 28, 2010): The proposed 25-foot travel way on-site traverses the proposed to access road to the Hybrid Energy Park as well as the Virginia Dominion Power electric and Columbia Gas easements. The Applicant needs to coordinate with each of these entities to gain permission of access and to ensure there are no conflicts with existing or planned uses.

Current Issue Status: Clarification is needed. Issue not resolved.

Applicant Response

The proposed travelway that crosses the existing easements does not conflict with the conditions of the existing recorded easements for gas and electric power.

New Transportation Comments

The following additional comments are based on review of new materials (including the December, 2010 traffic study).

7. The traffic study sets forth a series of transportation related improvements which are needed to address road network deficiencies cited in the study.

Under existing (2010) conditions, these deficiencies include:

- The need for traffic signals at the Route 15/Masons Lane, Sycolin Road/Hope Parkway, Sycolin Road/Tavistock Drive, Sycolin Road/Miller Drive, Sycolin Road/Loudoun Center Place and Dulles Greenway westbound ramp/Belmont Ridge Road intersections.
- Dual left-turn lanes on westbound Battlefield Parkway and modified signal timings at the Battlefield Parkway/Evergreen Mill Road intersection.
- An interchange at the Sycolin Road/Leesburg Bypass intersection. (OTS Staff notes that this improvement is not in the 2010 CTP.)

Under 2015 Background (no site development) conditions, the following improvements are needed:

- A traffic signal is needed at the Sycolin Road/Shreve Mill Road intersection.

Under 2015 total traffic conditions assuming the full build out of Phase 2, the following improvements are needed:

- Traffic signals the Shreve Mill Road/Evergreen Mill Road, Sycolin Road/Cochran Mill Road and Sycolin Road/Gulick Mill Road intersections.
- Under 2020 background traffic (no development) traffic conditions, dual northbound left-turn lanes are needed at the Sycolin Road/Belmont Ridge Road intersection.

Under 2020 traffic conditions with full site build out the following improvements are needed:

- Dual westbound left-turn lanes out of the site are needed at the proposed site driveway.
- Sycolin Road will need to be widened to four lanes north of the site.
- Two southbound travel lanes extending south past the site-access driveway on Sycolin Road for some distance to accommodate the dual left-turns.

Based on the site impacts to the surrounding road network, OTS recommends that the Applicant provide the following improvements:

- The widening of Sycolin Road from the current four-lane widening project (near the Leesburg Airport) to the westernmost Sycolin Road bridge over the Dulles Greenway. Coordination regarding the relocation of a segment of Sycolin Road to accommodate the proposed runway extension at Leesburg Airport is necessary. This will also require off-site right-of-way acquisition.
- Sycolin Road Entrance improvements which meet VDOT standards including signalization and turn lanes.
- Construction of site entrance striping and widening to accommodate two inbound and three outbound lanes.
- The provision of traffic signals to study intersections where warranted. Due to the planned realignment of both Shreve Mill Road and Cochran Mill Road, the installation of traffic signals at these existing intersection locations along Sycolin Road may not be desirable.

Phasing of these recommended improvements requires further discussion.

Applicant Response

As discussed in the meeting with George Phillips on February 15, 2011, the Applicant will be responsible for improvements pertaining to the site entrance on Sycolin Road. A proffer has been added to provide for contributions to the County for regional road improvements within the vicinity of the Stonewall

Secure Business Park. The contributions can then be used by the County where transportation improvements are needed most in the vicinity.

8. In order to address the lower percentage, less direct impacts of site traffic on the regional road network, a per square foot regional road contribution is recommended for area improvements. Further review and discussion is needed to determine a specific contribution amount. The Applicant has provided draft proffer language for regional road contributions. However, the specific dollar amounts are not specified and will need to be determined. In addition the Applicant has proposed restrictions that the contributions are to be used for the installation of traffic signals as specifically described in the traffic study. OTS does not support the proposed restriction at this time. There are a variety of planned transportation improvements (e.g., Crosstrail Boulevard, the Sycolin Road/Leesburg Bypass intersection location, etc.) to which these funds could also be applied. OTS recommends that the final proffer language provide for more flexibility. Further discussion is recommended.

Applicant Response

The proffers have been revised to provide regional road contributions based upon \$0.34 per gross square feet to be paid at each zoning permit at site plan review. Furthermore, the proffers specify that these contributions are to be used with two miles of the Subject Property which should provide flexibility as recommended by OTS. These contributions were discussed at the meeting on February 15, 2011.

9. In order to ensure that the traffic impacts set forth in the traffic study reflect the proposed development, proffers and/or conditions regarding use restrictions on the proposed development are necessary such that data center uses will not exceed 4.5 million square feet and office uses will not exceed 500,000 square feet.

Applicant Response

As discussed with OTS at the February 15, 2011 meeting, the Applicant has added a proffer to restrict development on the Subject Property over 3,500,000 gross square feet until such time as Crosstrail Boulevard is completed from Sycolin Road to the Dulles Greenway.

10. Clarification is needed regarding the amount of other (proposed Special Exception) uses including the utility substation and indoor firearm range. These uses are not referenced in the Applicant's traffic study.

Applicant Response

The above referenced uses are for internal business park users and not open to the public. The uses do not add additional transportation impacts. However, all uses will be contributing regional road contributions at \$0.34 per square foot.

11. The Applicant needs to address the access constraints at the southeast end of Sycolin Road in the vicinity of the Sycolin Road/Belmont Ridge Road intersection. The Applicant's traffic study forecasts between 8,000 and 9,000 vehicles per day on Sycolin Road east of the subject site by 2020. The Sycolin Road/Belmont Ridge Road intersection is shown to include failing LOS at build out (year 2020). In addition, the planned capacity of Sycolin Road will be restricted by the recently constructed road section and parallel parking in the Goose Creek Village retail/commercial development immediately west of the Sycolin Road/Belmont Ridge Road intersection. In order to relieve projected traffic in this area, it is recommended that the Applicant pursue the construction of Crosstrail Boulevard between Sycolin Road and the Dulles Greenway which would provide an additional means of access to the site from the Dulles Greenway.

Applicant Response

As stated above, the Applicant has added a proffer to limit development on the Subject Property to 3,500,000 gross square feet until such time as Crosstrail Boulevard is completed from Sycolin Road to the Dulles Greenway.

12. In keeping with Appendix 6 of the 2010 CTP which sets forth recommendations for bicycle and pedestrian facilities along planned CTP roads, a 10 foot wide shared use path over a 14-foot wide right-of-way or public access easement is recommended along the site frontage.

Applicant Response

The Concept Plan has been revised to add a bicycle and pedestrian trail along Sycolin Road to the north of the site entrance and a proffer requires a 10-foot wide trail to be within a 14-foot wide easement.

Conclusion

OTS has no recommendation at this time. The above issues, as well as those previously raised in the September 28, 2010 OTS referral, need to be adequately addressed. Depending on the Applicant's responses, OTS may have additional comments. OTS staff is available to meet to discuss the transportation issues associated with these applications.

LOUDOUN WATER (JULIE ATWELL, 1/28/2011)

Loudoun Water has reviewed the referenced application and has no objection to its approval.

Loudoun Water could serve the proposed development by extension of existing facilities. Public water and sanitary sewer service would be contingent upon the developer's compliance with our *Statement of Policy; Rate, Rules and Regulations; and Design Standards.*

Applicant Response

The Applicant will comply with Loudoun Water's Statement of Policy, Rate, Rules and Regulations, and Design Standards, if Loudoun Water serves the proposed development.

LOUDOUN COUNTY DEPARTMENT OF GENERAL SERVICES (BOYD CHURCH, 2/1/2011)

This office has no comment on these applications at this time. Comments will be provided when more detailed engineering information is available.

LOUDOUN COUNTY PARKS, RECREATION AND COMMUNITY SERVICES (MARK NOVAK, 1/3/2011)

COMMENTS:

The Department of Parks, Recreation and Community Services (PRCS) have reviewed the applicant's responses dated December 27, 2010 to referral comments dated September 17, Draft Proffer Statement dated December 20, 2010 and revised ZMAP 2008-0017, SPEX 2010-0018, SPEX's 20010-0068, SPEX 2008-0069, SPEX 2008-0070 and CPMT 2010-0014

The following is a summary of the current status of the issues identified by the Department of Parks Recreation and Community Services, dated September 17, 2010.

Comment #1: No proffers were submitted with this application. Please provide proffers for review.

Applicant Response: *The Applicant will submit a draft Proffer Statement after the revised traffic study has been completed.*

Issue Status: In comment #2 responses, below. The Applicant is proposing to include a proffer for a cash contribution to be used within the Philip A. Bolen Memorial Park for the construction of trails. Staff would prefer to review the draft proffer statement as early as possible.

Applicant Response (12/20/10): *The draft proffer Statement is enclosed with this letter and includes a \$15,000.000, cash contribution for construction of a trail within Phillip A. Bolen Memorial Park.*

Issue Status: Acknowledge

Comment #2: PRCS notes that the subject properties are adjacent to parcels MCPI# 191-16-9866, 193-47-8662, and 193-48-6164, which has been designated as Philip A. Bolen Memorial Park and is currently under construction. The portions of these properties adjacent to Sycolin Creek have been designated for stream valley protection and public access to the stream channel.

PRCS is developing a system of interconnected linear parks along the County's Major Stream Valley Corridors. This is consistent with the Greenways and Trail Policies of the Revised General Plan, Policy 1 (p. 5-39): *"Greenways include areas along rivers and*

streams that are often ideal for trails". Policy 4 (p. 5-40): "The County will seek through purchase, proffer, density transfer, donation or open-space easement, the preservation of greenways and the development of trails". Parks, Recreation and Community Services Policies, Policy 3 (p. 3-15), states that "The County encourages the contiguous development of regional linear parks, trail, and natural open space corridors to provide pedestrian links and preserve environmental and aesthetic resources".

PRCS respectfully requests that the Applicant proffer a commitment to the dedication of land for further development of linear parks, passive trails, and natural open space corridors in this area. A future trail system along Sycolin Creek and Goose Creek would link Bolen Park to the existing Potomac Heritage National Scenic Trail at Keep Loudoun Beautiful Park. PRCS typically requests dedication of the floodplain to the County within 6 months of rezoning approval.

Applicant Response: *The Applicant will include a proffer for a cash contribution to be used within the Philip A. Bolen Memorial Park for the construction of trails. A trail along Sycolin Creek would compromise the security of the Stonewall Secure Business Park.*

Issue Status: Staff understands the Applicants concerns on compromising the security of the proposed business park and is open to working with the Applicant on a *proffer for a cash contribution to be used within the Philip A. Bolen Memorial Park for the construction of trails. Staffs suggest a meeting with the Applicant to further discuss.*

Applicant Response (12/20/10): *A meeting with Mark Novak and other staff occurred on October 21, 2101, and it was determined that a cash contribution for a trail in the Phillip A. Bolen Memorial Park would be satisfactory. As stated above, the draft Proffers includes a cash contribution.*

Issue Status: Acknowledge

Comment #3: In conjunction with Comment 2, PRCS requests that the Applicant proffer a monetary commitment to the development of a canoe launch / trailhead along Sycolin Creek off of Cochran Mill Road, as proposed on the Philip A. Bolen Memorial Park Conceptual Master Plan by Lewis Scully Gionet, LLC, dated May 12, 2002. Staff is willing to discuss this potential opportunity in a future meeting with the Applicant.

Applicant Response: *See response to comment 2, above*

Issue Status: *See response to Issue Status to comment 2, above.*

Issue Statuses (1/3/11): *In the applicants response dated 12/20/11, the applicant is proffering (Draft Proffer Statement December 21, 2010, proffer IV.20) a cash contribution of \$15,000.000, for construction of a trail within Phillip A. Bolen Memorial Park. PRCS staff met with the Applicant and determined that a cash contribution for a trail in the Phillip A. Bolen Memorial Park would be satisfactory.*

Comment #4: Staff requests more information about the potential transportation impacts of the project during and after construction, and how it may impact the adjacent park.

Applicant Response: *The traffic study will be revised and data center uses do not generate significant amounts of traffic. A proffer to address construction traffic will be provided in the proffer statement that will be submitted in the near future.*

Issue Status: Not resolved, no draft proffers to review.

Applicant Response: *The revised Traffic Study is enclosed with this letter.*

Issue Status: Acknowledge

Applicant Response

The revised proffers include regional road contributions for transportation improvements within 2 miles of the Subject Property which could benefit the Philip A. Bolen Memorial Park.

Comment #5: The current Revised Countywide Transportation Plan (CTP) proposes Cochran Mill Road and Sycolin Road to be improved, widened, or realigned through the subject property. Please revise and/or explain this discrepancy.

Applicant Response: *The proposed alignment for Cochran Mill Road severely compromises the security of the Stonewall Secure Business Park. The 'traffic study will be revised and these issues will be discussed with staff in the Office of Transportation.*

Issue Status: Deferred to Office of Transportation.

Applicant Response: *This issue will be discussed with the Office of Transportation.*

Issue Status: Acknowledge

Comment #6: Staff notes that the subject properties are in close proximity to the Luck Stone Quarries. While the Applicant has stated that the business park makes a good buffer to the quarry uses, Staff is concerned about how the quarry and its rock-blasting may impact the proposed uses on the site.

Applicant Response: *Quarry uses and the impacts from the quarry operations will not impact the data center uses.*

Issue Status: Resolved.

Comment #7: PRCS requests more information on the noise (cooling towers) and light glare impacts to the surrounding natural environment that are typically associated with research and data centers.

Applicant Response: *All noise that is generated by the data center uses will be attenuated to meet the requirements of the Zoning Ordinance. Lighting will be directed downward in inward toward the site and will be shielded to prevent light trespass.*

Issue Status: Resolved.

Comment #8: Staff notes that the subject properties are in close proximity to the Leesburg Regional Airport. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to the airport (e.g., noise and light glare) will be mitigated.

Applicant Response: *The proposed data center uses will not impact the Leesburg Executive airport and the water storage facilities will be coordinated with the FAA during site plan review.*

Issue Status: Resolved.

Comment #9: It appears that the Concept Plan shows potential impacts to stream corridors, including major and minor floodplain. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to stream corridors will be mitigated.

Applicant Response: *Sycolin Creek will be protected by the Stream Valley Creek Buffer and the Rivers and Streams Corridor Overlay.*

Issue Status: Resolved.

Comment #10: It appears that the Concept Plan shows potential impacts to wetlands. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to wetlands will be mitigated.

Applicant Response: *All impacts to wetland will be coordinated with the U.S. Army Corps of Engineers and the Virginia Department of Environmental Quality.*

Issue Status: Resolved.

Comment #11: It appears that the Concept Plan shows potential impacts to very steep slopes. The Applicant should demonstrate to Staff, the Planning Commission, and the Board of Supervisors how any potential impacts to very steep slopes will be mitigated.

Applicant Response: *The very steep slopes areas will not be disturbed.*

Issue Status: Resolved.

Comment #12: Please revise Sheets 1, 2, 3, 5 and 6 of the Concept Plan to identify and label Philip A. Bolen Memorial Park.

Applicant Response: *As requested, the plan sheets have been revised to label Philip A. Bolen Memorial Park.*

Issue Status: Resolved

CONCLUSION:

PRCS has reviewed the Applicants responses and finds them satisfactory and would not be in objection to approval of this application as presented.

LOUDOUN COUNTY HEALTH DEPARTMENT – DIVISION OF ENVIRONMENTAL HEALTH (MATTHEW TOLLEY, 1/4/2011)

The Health Department recommends approval of this application. The proposal will be served by public water and sewer. There appear to be no abandoned houses or existing septic field or wells

on the subject parcels. The plat reviewed was prepared by Gordon & Associates and was revised 15 December 2010.

Attachments Yes ____ No X

The joint referral memorandum from the Department of Building and Development and the Department of Planning, dated February 17, 2011, and the Virginia Department of Transportation referral memorandum also dated February 17, 2011 will be both addressed under separate cover.

On behalf of the Applicant, we appreciate working with staff to address these comments and look forward to working with staff to address any outstanding issues prior to the Planning Commission public hearing scheduled for March 23, 2011.

Thank you for your assistance with these applications and the Stonewall Secure Business Park.

Sincerely,

WALSH, COLUCCI, LUBELEY, EMRICH &
WALSH, P.C.

Kimberlee Welsh Cummings

Kimberlee Welsh Cummings, AICP
Land Use Planner

DRAFT
PROFFER STATEMENT
STONEWALL SECURE BUSINESS PARK

**ZMAP 2008-0017, SPEX 2010-0068, SPEX 2010-0069, SPEX 2010-0070,
SPEX 2010-0034**

December 21, 2010
Revised February 18, 2011

Stonewall Creek, LLC, applicant, together with **Sycolin Corner, LLC**, record owner of Loudoun County Tax Map 60, Parcel 41 (94.88 acres) (PIN #193-27-9018) and **LTI Limited Partnership**, record owner of Loudoun County Tax Map 60, Parcel 39 (45.17 acres of 59.94 acres)(PIN #194-48-6020) and Loudoun County Tax Map 61, Parcel 13 (53.54 acres) (PIN #194-49-8227), collectively the “Subject Property” consisting of a total of approximately 193.59 acres, (the above referenced record owners and applicant shall hereafter be referred to as the “Applicant”), hereby voluntarily proffers, pursuant to Section 15.2-2303 of the Code of Virginia (1950), as amended, and Section 6-1209 of the Revised 1993 Loudoun County Zoning Ordinance of Loudoun County, Virginia (hereinafter referred to as “Zoning Ordinance”), as amended, that in the event the Loudoun County Board of Supervisors approves ZMAP 2008-0017, to change the zoning designation of the Subject Property to the Planned Development – Industrial Park (“PD-IP”) zoning district and as more particularly shown on the Concept Plan (ZMAP/SPEX/CMPT) Plat (identified below), the development of the Subject Property will be in substantial conformance with the following proffered terms and conditions.

I. LAND USE

1. CONCEPT PLAN/ZMAP/SPEX/CMPT

The development of the Subject Property shall be in substantial conformance with Sheets 2, 4, 5 and 6 of 7 (“Concept Plan”) of the plan set titled “Stonewall Secure Business Park Zoning Map Amendment Application 2008-0017 Special Exception Applications: 2008-0068/2008-0069/2008-0070/2010-0018/2010-0034 Commission Permit Plat CMPT 2010-0014”, dated July, 2009, and revised through February 18, 2011, prepared by William H. Gordon Associates, Inc. and shall be in substantial conformance with the conditions set forth below. The Concept Plan shall control the

general layout of the Subject Property. The Applicant shall have reasonable flexibility in the final design during site plan review to accommodate minor modifications necessitated by grading, drainage, environmental, cultural and natural features, development ordinance requirements, and other final engineering considerations. The Applicant shall develop the Subject Property with data center uses permitted as office uses, commercial office uses as principal uses and other uses that are permitted in the PD-IP zoning district, with related accessory uses as permitted by the approved special exceptions in the PD-IP zoning district.

The development of the Subject Property shall also be subject to the advertised zoning modifications of Sections 4-502, 4-506(B) and 4-507(C) of the Zoning Ordinance which are shown on Sheet 2 of the Concept Plan and pursuant to Section 6-1504 of the Zoning Ordinance.

Not more than (10%) of the total allowable gross floor area on the Subject Property or 500,000 gross square feet, whichever is greater, shall be developed as stand alone commercial office uses (not including data center uses).

II. TRANSPORTATION

2. ON-SITE PRIVATE TRAVELWAYS

The Applicant shall construct all on site travelways on the Subject Property in the locations as shown on the Concept Plan, and in accordance with the County of Loudoun's Land Subdivision and Development Ordinance ("LSDO") and Facilities Standards Manual ("FSM"), as may be applicable, to provide on-site access for the Subject Property. Prior to approval of the first site plan for the Subject Property emergency ingress and egress easements will be created and established on all on-site travelways on an individual site plan basis on the Subject Property by the recordation of a deed or deeds of easement approved by the County Attorney, and associated plat or plans approved by the Department of Building and Development, which shall provide that the Applicant shall be responsible for the construction, repair and maintenance of said travelways and that neither the County nor the Virginia Department of Transportation ("VDOT") shall have any such responsibility. The

Applicant shall construct the on-site private travelways providing access to the Subject Property from Sycolin Road (State Route 643) in the location as shown on the Concept Plan and in conformance with the LSDO and the FSM and shall construct, or bond for construction, the travelway entrance from Sycolin Road in conformance with VDOT minimum standards as determined at time of first site plan approval.

3. CONSTRUCTION TRAFFIC

Prior to the first site plan approval for the Subject Property, the Applicant shall submit for review by VDOT and Loudoun County a delivery and construction traffic plan for construction-related access on the permanent private travelway access point on Sycolin Road.

4. SYCOLIN ROAD IMPROVEMENTS

The Applicant shall grant easements on the Subject Property along Sycolin Road for the future improvements to Sycolin Road that are necessary for construction, grading and utilities at the request of Loudoun County at time of actual widening.

5. SITE ENTRANCE

The entrance to the Subject Property shall be constructed by the Applicant, prior to the first site plan approval and shall be located north of archaeological site #44LD1195 to preserve the site. The Applicant shall design the site entrance to allow unobstructed right and left turning movements from Sycolin Road public road right-of-way into the Subject Property. The site entrance design shall provide necessary holding and stacking areas on the Subject Property to prevent vehicles entering the site entrance from stopping within the public right-of-way due to security inspection traffic backup.

6. BICYCLE AND PEDESTRIAN TRAIL ALONG SYCOLIN ROAD

Prior to the first site plan approval on the Subject Property, the Applicant shall grant and convey a 14 foot wide easement for a 10 foot wide shared bicycle and pedestrian

trail in the area as shown on the Concept Plan and not within the area of archaeological site #44LD1195.

5. REGIONAL ROAD AND TRANSPORTATION CONTRIBUTIONS

The Applicant shall make regional road contributions of \$0.34 per gross square foot of development up to 4,900,000,000 (four million, nine-hundred thousand) gross square feet, which shall be payable to the County of Loudoun concurrently with the issuance of each zoning permit with each site plan application on the Subject Property. These foregoing contributions shall be used for transportation improvements for Crosstrail Boulevard and other improvements within two miles of the Subject Property.

The Applicant shall not exceed 3,500,000 (Three million, Five-hundred thousand) gross square feet of development until such time as Crosstrail Boulevard is completed between Sycolin Road and the Dulles Greenway.

III. ENVIRONMENTAL

6. LOW IMPACT DEVELOPMENT DESIGN/BEST MANAGEMENT PRACTICES (BMP's)

Development of the Subject Property shall incorporate low impact development design such as but not limited to grass line drainage, tree save areas, buffers and stormwater management and BMP techniques to filter on-site run-off and protect the water quality of Sycolin Creek. The low impact development design and best management practices will include the appropriate site-specific water control techniques recommended in the latest edition of the Virginia Stormwater Management Handbook and the FSM. These low impact development design and BMP techniques shall be implemented through the site plan process.

7. LANDSCAPE BUFFER/PERIMETER SECURITY AND OTHER PLANTINGS

All landscaping and plantings shall be indigenous and shall be determined during site plan approval. Where Tree Save Areas are within the Landscape Buffer/Perimeter Treatment areas as shown on the Concept Plan, existing trees and vegetation shall be used and will be coordinated with the County Urban Forester.

The Applicant shall provide landscape buffer/perimeter security treatments in the areas as shown on the Concept Plan. Where feasible within these areas, existing trees and vegetation will be retained. Supplemental plantings and/or other perimeter security treatments may be incorporated depending upon the specific location such as but not limited to fencing, berms, roadside or landscaping swale shrubs and impenetrable or trespass deterrent plantings.

8. TREE SAVE AREAS

Prior to first site plan approval, the Applicant shall coordinate with the County Urban Forester to develop a forest management plan, habitat commitments and replanting plan for the areas identified on the Sheets 4 and 5 of the Concept Plan as Trees Save Area ("TSA") on the Subject Property.

Within the areas identified on the Concept Plan as TSA, with the exception of the Archeological Sites #44LD1195, #44LD1329 and #44LD1326, the Applicant shall preserve healthy trees provided, however, that trees may be removed to the extent necessary for the construction of stormwater management facilities that are required and/or shown on the site plan(s) as lying within such TSA and for the construction of utilities necessary for development of the Subject Property. A minimum of eighty (80) percent of the canopy within the cumulative TSA depicted on the Concept Plan will be preserved, exclusive of stands of Virginia Pine over 25 years in age. In the event that the eighty (80) percent canopy threshold cannot be achieved within the designated TSA, such lost canopy will be recaptured elsewhere onsite in locations to

be designated at the discretion of the Applicant in consultation with the County Urban Forester. The TSA shall be delineated on each site plan application and construction plans and profiles application. The TSA may be expanded into the areas that are not utilized for the Water Storage Tank and Water Treatment Facilities, which areas are identified on the Concept Plan.

If, during construction on the Subject Property, it is determined by the Applicant's certified arborist and/or the County Urban Forester that any healthy tree (6 inch or greater diameter at breast height) located within the boundaries of any of the TSA as described in this proffer has been damaged during construction and will not survive, then, prior to any subsequent bond release for the Subject Property, the Applicant shall remove each such tree and replace each such tree with two (2) 2½ - 3 inch caliper native, non-invasive deciduous trees. The placement of the replacement trees shall be proximate to the area of each such damaged tree so removed, or in another area on the Subject Property as determined by the County Urban Forester.

9. RIVERS AND STREAM CORRIDOR RESOURCES MANAGEMENT BUFFER

The Applicant shall preserve and protect existing trees, vegetation, and environmental features within the areas identified on Sheets 4 and 5 of the Concept Plan as Rivers and Stream Corridor Resources Management Buffer ("Management Buffer") that are not located within the TSA's. No land disturbing activity will be permitted in the Management Buffer areas with the exception of disturbance necessary for road construction, bridge installation, stormwater management, drainage improvements, water lines, sanitary sewer lines, slope stabilization, wetlands mitigation, landscaping, or other project utilities. The Applicant, its successors and/or assigns will be prohibited from clearing any trees (other than invasive species, dead, dying or diseased trees) in the Management Buffer area, with the exceptions as stated above.

Prior to and during construction, to protect the Management Buffer area, the Applicant will use temporary chain link fencing or super silt fencing in lieu of the

plastic orange fencing required by the FSM, if approved by the Department of Building and Development. Chain link fencing will not be required in areas employing super silt fencing.

10. WETLANDS MITIGATION

In the event the U.S. Army Corps of Engineers or the Virginia Department of Environmental Quality (“DEQ”) determine, at the time of first site plan approval or construction plan and profile approval, whichever is first in time, that any jurisdictional wetland areas are affected by the proposed development which require mitigation, the Applicant shall provide, at the Applicants discretion, such required mitigation, in order of preference, as follows: 1) on the Subject Property, 2) within the Sycolin Creek Watershed within the same Planning Policy Area, 3) within the Sycolin Creek Watershed outside the Planning Policy Area, 4) within Loudoun County, and 5) within other areas outside of Loudoun County, subject to approval by the U.S. Army Corps of Engineers and DEQ.

Prior to the commencement of any land disturbing activities in wetlands areas, all necessary state and federal wetlands permits shall be obtained and copies of these permits shall be submitted to the Loudoun County Department of Building and Development.

11. VERY STEEP SLOPE AREAS

Prior to the commencement of any land disturbing activities, the Applicant shall survey, flag, and install super silt fencing or temporary chain link fencing, in lieu of plastic orange fencing, if approved by the Department of Building and Development, around the very steep slope areas that are located in proximity to the area to be affected by land disturbance. Said fencing shall remain in place for the duration of all land disturbing activities.

12. LIGHTING

The Applicant shall install lighting that is directed downward and inward, full cutoff and fully shielded, and in full conformance with Zoning Ordinance and FSM requirements. All exterior luminaries shall be of a “shoebox” design and utilize cut-off optics, where feasible. All luminaries shall be I.E.S. (“Illuminating Engineering Society”) Type V lenses that give circular light distribution for a maximum coefficient of utilization. All lighting shall be mounted as low as practicable to preclude light trespass onto adjacent residential properties in Land Bays A, B and C..

13. NOISE ATTENUATION

Generators and other high noise producing uses shall be designed and located to attenuate noise levels through the use of walls, baffles and the placement of the generators and uses using the building to attenuate or baffle the noise levels particularly adjacent to residential and park uses. After construction, the Applicant shall provide documentation that the noise levels meet the requirements of the Zoning Ordinance upon request of the County.

14. SYCOLIN CREEK

Prior to the issuance of the first zoning permit on the Subject Property, the Applicant will coordinate with Keep Loudoun Beautiful to adopt a section of Sycolin Creek from Sycolin Road and extending through the Subject Property for clean up of trash and debris during the annual Keep Loudoun Beautiful River and Stream clean up day.

15. WOOD TURTLE

Prior to any land disturbing activity on the Property in the area of the wood turtle habitat identified in the Applicant's submitted Endangered and Threatened Species Habitat Evaluation and Rare Plant Species/Community Assessment, prepared by Wetland Studies and Solutions, Inc., and dated November 8, 2004, the Applicant

shall perform a search for wood turtles in the area to be affected by construction. The Applicant shall provide educational materials about the wood turtle to contractors working on the Property prior to the commencement of any land disturbing activity. The Applicant shall instruct contractors to use bridge spans or bottomless culverts to prevent barriers of migration.

16. GREEN BUILDING STANDARDS

The Applicant shall design all data center and office buildings to achieve the Leadership in Energy and Environmental Design (“LEED”) Certified status for design, building and operation of these habitable buildings requiring issuance of Certificates of Occupancy (“CO”).

In addition to the standard site plan performance bonding required for site plans, the Applicant shall also furnish a surety satisfactory to the County prior to site plan approval, in the amount of \$.03 per square foot of habitable space in the data center and office buildings. Such surety shall guarantee the Applicant’s commitment to design said buildings to achieve the LEED Certified status and shall be released only upon a determination by the United States Green Building Council or by County Staff that LEED Certified status for the said buildings has been achieved.

17. EROSION AND SEDIMENT CONTROL AND TURBIDITY MANAGEMENT

In addition to the minimum requirements for erosion and sediment control in Chapter 1220 of the Codified Ordinance and the Virginia Erosion and Sediment Control Handbook, the Applicant shall provide the following heightened erosion and sediment control measures specified in the Facilities Standards Manual for Reservoir Protection Requirements, namely:

- a. Super silt fence shall be substituted for silt fence in all site perimeter locations;
- b. The use of stabilization matting shall be expanded to aid in the establishment of vegetation; and

- c. Development Phasing shall be utilized to avoid extensive areas of disturbance for extended periods of time.

The Applicant shall measure levels of turbidity in runoff leaving the Subject Property during the construction phase. Outfall discharge measurements samples shall be collected from any storm event that is less than or equal to a two (2) year, twenty-four (24) hour storm that causes a discharge within the first sixty (60) minutes (or as soon thereafter as practical) of when the runoff begins discharging from the facility. This information shall be submitted to the County Erosion and Sediment Control Inspector.

Turbidity is measured in nephelometric turbidity units (NTU) or Jackson Turbidity Units (JTU). If discharge turbidity measurements exceed 280 NTU/JTU due to site sediment and erosion control measures the Applicant shall, upon consultation with the County Erosion and Sediment Control Inspector, adjust the erosion and sediment control measures to reduce the measurements to a level below 280 NTU/JTU.

IV. HISTORIC RESOURCES AND REGIONAL TRAIL

18. ARCHAEOLOGICAL SITES #44LD1326 and #44LD1329

Prior to and during construction, to protect the above-referenced historic resources, the Applicant will use temporary chain link fencing or super silt fencing in lieu of the plastic orange fencing required by the FSM, if approved by the Department of Building and Development. Chain link fencing will not be required in areas employing super silt fencing.

19 SYCOLIN POTTERY SITE #44LD1195

Prior to any land disturbing activities within 50 feet of Site #44LD1195 (the "Pottery Site") the Applicant will coordinate with a professional archaeological consultant or the County Archaeologist to delineate the boundaries of Pottery Site. Prior to any land disturbing activities, the Applicant will install demountable metal fencing around the perimeter of the delineated Pottery Site to the edges of the demarcated Pottery

Site. Soil disturbance within the delineated Pottery Site area shall be in accordance with a management plan reviewed by the County Urban Forester. No interpretive signage or other signage indicating that the Pottery Site is an archeological site will be allowed.

The Applicant will to the greatest extent possible avoid the Pottery Site; however, if encroachment into Pottery Site is caused by the Applicant, the Applicant will either preserve the Pottery Site through acceptable archeological preservation techniques or perform a Phase 3 excavation on those areas to be disturbed. The scope of work for the preservation or Phase 3 excavation shall be submitted to the County Archaeologist for review, prior to commencement of the excavation. If a Phase 3 excavation is performed, the report with the findings shall submitted to the County.

20. REGIONAL TRAIL CONTRIBUTION

The Applicant shall make a one-time cash contribution to the County in the amount of Fifteen Thousand Dollars (\$15,000) at time of issuance of the first zoning permit on the Subject Property. This contribution shall be designated for the development of a trail connection between the trail system planned within the Philip A. Bolen Memorial Park and the W&OD Regional Park Trail.

V. FIRE, RESCUE AND EMERGENCY SERVICES

21. ONE-TIME CONTRIBUTION

The Applicant shall make a one-time contribution at issuance of each zoning permit to the servicing fire and rescue companies in the amount of Ten Cents (\$0.10) per gross square foot of building area which shall be payable to the County for distribution by the County to the primary volunteer fire and rescue companies providing service to the Subject Property. Such contribution shall be adjusted annually in accordance with changes to the CPI, beginning from a base year of 1988. Contributions pursuant to this paragraph shall be divided equally between the primary servicing fire and rescue companies providing fire and rescue services to the

Property. Notwithstanding the foregoing, at such time as the primary fire and rescue services to the Subject Property are no longer provided by incorporated volunteer companies, the obligation to make the contributions listed within this paragraph shall cease, or be reduced by half if only one service is no longer provided by an incorporated volunteer company. The intent of these provisions is to support a volunteer fire department and a volunteer rescue squad so long as each is the primary provider of fire or rescue services to the Subject Property.

VI. CONTRIBUTION ESCALATION

22. CONTRIBUTION ESCALATION

All cash payments or contributions required or permitted in this proffer statement shall escalate on an annual basis beginning one year after zoning approval and be adjusted effective January 1st of each year thereafter, based on the Consumer Price Index, for all urban consumers (CPI-U), 1982-1984=100 (not seasonally adjusted) as published by the Bureau of Labor Statistics, U.S. Department of Labor, for the Washington-Baltimore, MD-VA-DC-WV Consolidated Metropolitan Statistical Area with 2011, as the base year.

VII. BINDING EFFECT

23. BINDING EFFECT

The undersigned hereby warrant that all of the owners with a legal interest in the Subject Property have signed this Proffer Statement, that no signature from any additional party is necessary for these Proffers to be binding and enforceable in accordance with their terms, that they, together with the others signing this document, have full authority to bind the Subject Property to these conditions, and that this Proffer Statement is entered into voluntarily.

[SIGNATURE PAGES FOLLOW THIS PAGE]

STONEWALL CREEK, LLC

BY: _____
NAME: _____
TITLE: _____

STATE OF _____
CITY/COUNTY OF _____: to-wit:

The foregoing instrument was acknowledged before me, this ____ day of _____, 2011, by _____, as _____, of Stonewall Creek, LLC

Notary Public

My Commission Expires: _____

SYCOLIN CORNER, LLC

BY: _____
NAME: _____
TITLE: _____

STATE OF _____
CITY/COUNTY OF _____: to-wit:

The foregoing instrument was acknowledged before me, this ____ day of _____, 2011, by _____, as _____, of Sycolin Corner, LLC

Notary Public

My Commission Expires: _____

LTI LIMITED PARTNERSHIP

BY: Capitol Properties, Inc.

ITS: General Partner

BY: _____

NAME: Stephen J. Garchik

TITLE: President

STATE OF _____

CITY/COUNTY OF _____: to-wit:

The foregoing instrument was acknowledged before me, this ____ day of _____, 2011, by Stephen J. Garchik, as President of Capitol Properties, Inc., being the General Partner of LTI Limited Partnership.

Notary Public

My Commission Expires: _____

REVISIONS	
REVISED PER CLIENT AND COUNTY COMMENTS 8-11-10	
REVISED PER COUNTY COMMENTS 12-15-10	
REVISED PER COUNTY COMMENTS 2-18-11	
SURVEY	-----
DESIGN	C.STEPHENSON
DRAWN	C. STEPHENSON
CHECKED	
 CIVIL ENGINEERING • SURVEY • LANDSCAPE ARCHITECTURE • LAND PLANNING • SITE SECURITY CONSULTING William H. Gordon Associates, Inc. 4501 Dolly Drive • Chantilly, Virginia 20151 (703) 263-1900 • METRO (703) 803-9508 • FAX (703) 263-0766 www.wingco.com	
DATE	July, 2009
SCALE	HORIZ: AS SHOWN VERT: N/A
COVER SHEET	STONEWALL SECURE BUSINESS PARK ZMAP 2008-0017 & SPEX 2008-0068, 2008-0069, 2008-0070, 2010-0018, 2010-0034 & CMPT 2010-0014 CATOCIN ELECTION DISTRICT LOUNDOUN COUNTY, VIRGINIA
JOB	2720-0102
CADD	
SHEET	1 OF 7

NOTES:
EXISTING CONDITIONS MAP

- THE OVERALL BOUNDARY INFORMATION SHOWN WAS OBTAINED FROM A BOUNDARY SURVEY PERFORMED BY URBAN ENGINEERING CONDUCTED JANUARY 2005.
 - SITE AREA FOR ZMAP/SPEX/CMPT = +/- 193.59 AC
 - UTILITY TRANSMISSION LINES ARE SHOWN AND NOTED HEREON PURSUANT TO THE INFORMATION AVAILABLE FROM THE LOUDOUN COUNTY OFFICE OF MAPPING AND GEOGRAPHIC INFORMATION.
- ONSITE TOPOGRAPHY IS SHOWN WITH TWO (2') FOOT CONTOURS OBTAINED FROM TOPOGRAPHIC SURVEY PERFORMED BY URBAN ENGINEERING. ADJACENT TOPOGRAPHY WHERE SHOWN IS FIVE (5') FOOT CONTOURS OBTAINED FROM THE LOUDOUN COUNTY OFFICE OF MAPPING & GEOGRAPHIC INFORMATION.
- AN APPROXIMATE AREA OF ±13.5 ACRES OF MODERATELY STEEP SLOPES AND ±4.8 ACRES OF VERY STEEP SLOPES WERE IDENTIFIED FROM A STEEP SLOPES ANALYSIS AND ARE DEPICTED ON THE EXISTING CONDITIONS MAP AND SITE DEVELOPMENT WILL COMPLY WITH SECTION 5-1508 STEEP SLOPE STANDARDS.
- WATER COURSES, DRAINAGE WAYS AND OTHER BODIES OF WATERS ARE DEFINED ON THIS EXISTING CONDITIONS MAP AND WERE ACQUIRED FROM LO. CO. OFFICE OF MAPPING & GEOGRAPHIC INFORMATION.
 - WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION BOUNDARIES SHOWN HEREON PROVIDED BY WETLAND STUDIES AND SOLUTIONS, INC. AND CONFIRMED BY THE U.S ARMY CORPS OF ENGINEERS JURISDICTIONAL DETERMINATION #05-R2064, DATED NOV. 18, 2005, ARE FOR INFORMATIONAL PURPOSES ONLY. THESE AREAS ARE SUBJECT TO MODIFICATION AND MAY BE IMPACTED UNDER PERMITS ISSUED BY THE UNITED STATES ARMY CORPS OF ENGINEERS UNDER SECTION 404 OF THE CLEAN WATER ACT AND/OR THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY UNDER SECTION 401 OF THE CLEAN WATER ACT AND THE VIRGINIA WATER PROTECTION PROGRAM.
- THE GENERAL LOCATION OF TREE COVER SHOWN HEREON WAS OBTAINED FROM LOUDOUN COUNTY G.I.S. DATA. REFER TO "FOREST MANAGEMENT PLAN & COVER TYPE" STUDY PROVIDED BY ZIMAR & ASSOCIATES, INC. DATED JULY 31, 2008, WHICH HAS BEEN PREPARED BASED UPON CRITERIA PROVIDED BY THE COUNTY FORESTER. THIS STUDY WILL PROVIDE SITE SPECIFIC EXAMINATION OF THE LOCATION AND DESCRIPTION OF VEGETATION AND EXISTING TREE COVER WHICH INCLUDES THE FOLLOWING:
 - A. A DESCRIPTION OF THE TYPE AND EXTENT OF TREE COVER.
 - B. AN INVENTORY OF EVERGREEN TREES WITH CALIPERS OF 14 INCHES OR LARGER & DECIDUOUS TREES WITH CALIPERS OF 22 INCHES OR LARGER ARE SHOWN IN ATTACHMENT X OF REFERENCED STUDY.
 - C. FOR POTENTIAL ENDANGERED SPECIES HABITAT SEE STUDY TITLED "ENDANGERED AND THREATENED SPECIES HABITAT EVALUATION AND RARE PLANT SPECIES/COMMUNITY ASSESSMENT", DEVELOPED BY WETLAND STUDIES AND SOLUTIONS, DATED NOV. 8, 2004.
- EXISTING MAJOR & MINOR FLOODPLAIN ILLUSTRATED ON THIS MAP WERE OBTAINED FROM LOUDOUN COUNTY GIS INFORMATION AND ARE SUBJECT TO SECTION 4-1500 (FOD OVERLAY DISTRICT) OF THE REVISED 1993 ZONING ORDINANCE.
- SOILS AND CORRESPONDING HYDRIC SOILS GROUPS SHOWN HEREON WERE OBTAINED FROM THE LOUDOUN COUNTY SOILS SURVEY.
- THE LOCATION, NAMES AND/OR NUMBERS OF ALL ARTERIAL, COLLECTOR AND LOCAL STREETS THAT CONNECT OR ARE ADJACENT TO THE PROPOSED PROJECT WERE OBTAINED FROM THE LOUDOUN COUNTY OFFICE OF MAPPING & GEOGRAPHIC INFORMATION.
- ALL EXISTING STRUCTURES AND BUILDINGS FOUND ON THE SUBJECT PROPERTY WILL BE REMOVED.
 - DELINEATION OF EXISTING STRUCTURES CAN BE FOUND IN THE STUDY TITLED "PHASE I ARCHAEOLOGICAL INVESTIGATIONS OF THE CIRCA 652 ACREE CREEKSIDE AREAS 4 AND 5 PROPERTY", DEVELOPED BY THUNDERBIRD ARCHEOLOGY IN OCTOBER 2005.
- THERE ARE NO KNOWN GRAVE, OBJECT OR STRUCTURES MARKING A PLACE OF BURIAL.
- EXISTING ROADS, STRUCTURES, STONE WALLS, FENCES AND OTHER PROMINENT FEATURES WERE OBTAINED FROM THE COUNTY PCT MAPS.
- THE SITE FALLS WITHIN LDN-60 1 MILE BUFFER OVERLAY DISTRICT (LEESBURG AIRPORT). A SMALL PORTION OF PIN# 193-27-9018 IS WITHIN THE LDN 60 NOISE CONTOUR. THE SITE IS PARTIALLY WITHIN THE QUARRY NOTIFICATION OVERLAY DISTRICT. REQUIREMENTS SET FORTH IN SECTION 4-1400 AND SECTION 4-1800 OF THE LOUDOUN COUNTY ZONING ORDINANCE WILL BE OBSERVED.
- FEDERAL AND STATE PERMITS MAY BE REQUIRED UNDER SECTION 404 OF THE CLEAN WATER ACT BY THE UNITED STATE ARMY CORPS OF ENGINEERS AND/OR THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY UNDER SECTION 401 OF THE CLEAN WATER ACT AND THE VIRGINIA WATER PROTECTION PROGRAM.
- REFER TO PHASE I ENVIRONMENTAL SITE ASSESSMENT - CREEKSIDE PHASE I, LEESBURG, VA, DATED OCTOBER 6, 2004 FOR A LISTING OF ANY KNOWN HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PARTS 116.4, 302.4 AND 355; ALL HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA DEPARTMENT OF WASTE MANAGEMENT.

PARKING AND LOADING SPACES PER SECTION 5-1100

DATA CENTER

(REQUIRED)

PARKING: 1 PER EMPLOYEE ON THE MAJOR SHIFT.

LOADING: 1/25,000 SQ. FT. GFA UP TO 500,000 SQ. FT. PLUS ONE FOR THE NEXT 50,000 SQ.FT. PLUS ONE/100,000 SQ. FT. THEREAFTER.

OFFICE AND BUSINESS SERVICES

REQUIRED PARKING: 4/1,000 SQ. FT. OF GFA FOR UP TO 30,000 SQ. FT.; 3.3/1,000 SQ. FT. OF GFA THEREAFTER

LOADING: NONE FOR THE FIRST 30,000 SQ FT THEN ONE/100,000 SQ FT THEREAFTER

(PROVIDED)

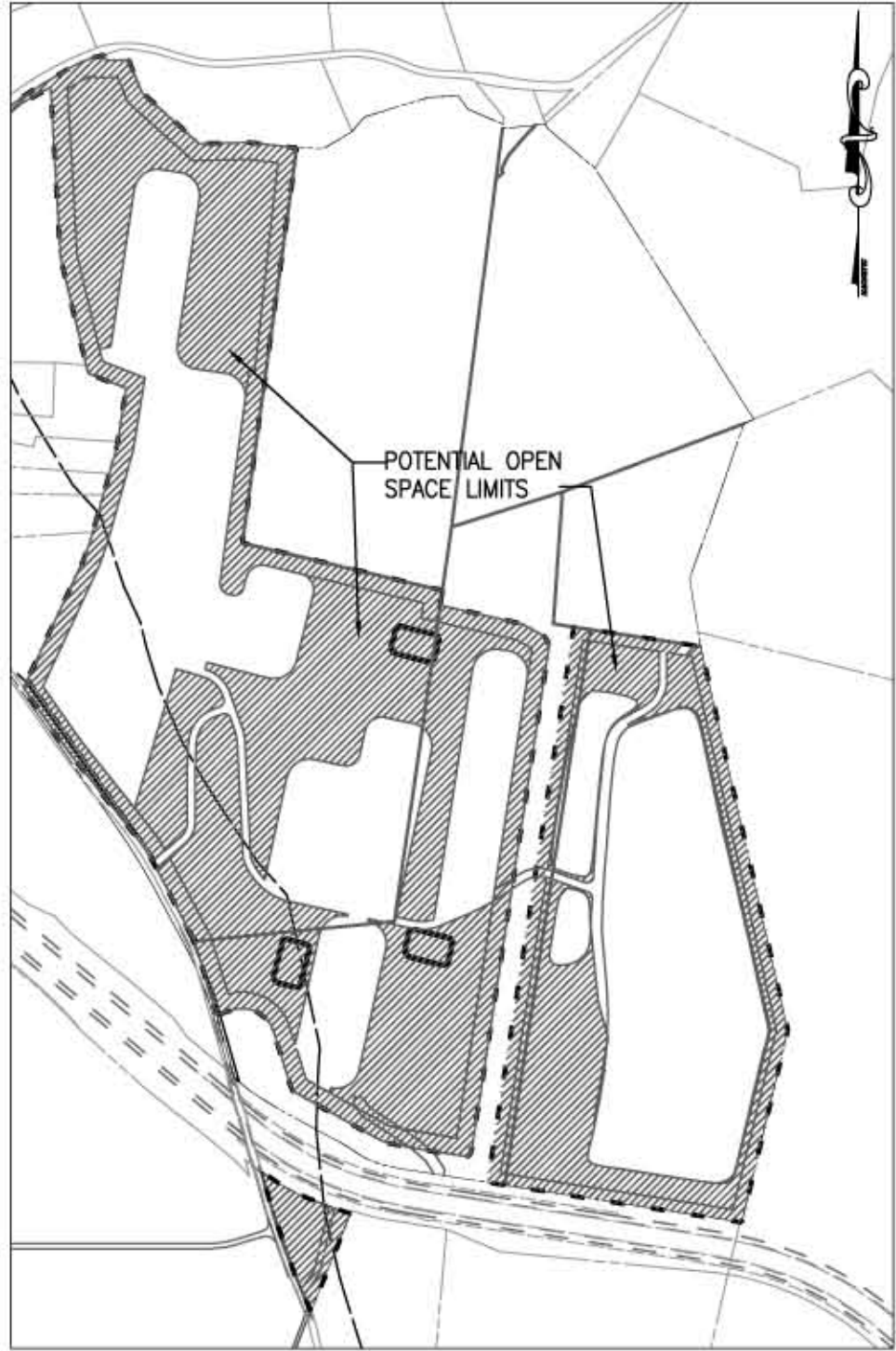
PARKING AND LOADING SPACE COUNTS WILL BE DETERMINED AT SITE PLAN STAGE BASED ON FINAL DEVELOPMENT AREAS, USES AND ANTICIPATED EMPLOYEES.

NOTES:
CONCEPT PLAN

- THE PROPERTY IS GOVERNED UNDER THE REVISED 1993 ZONING ORDINANCE. EXISTING ZONING: TR-10
- PROPOSED ZONING: PD-IP
- THERE ARE NO PROPOSED RESIDENTIAL DISTRICTS WITH THIS APPLICATION.
 - SEE THIS SHEET FOR PROPOSED FAR CALCULATIONS. SEE **CONCEPT PLAN** SHEET FOR THE DELINEATION OF SETBACK LINES AND ENTRANCES TO THE SITE.
 - ACCESS IS SHOWN ON THE CONCEPT PLAN. ALL ACCESS INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLES ARE CONTROLLED OR PROHIBITED FOR SECURITY PURPOSES.
 - ALL EXISTING AND PROPOSED ABUTTING ROADS AND THEIR RIGHT-OF-WAY WIDTHS ARE LOCATED ON THE **CONCEPT PLAN**.
 - ALL EXISTING NON-RESIDENTIAL ACCESS POINTS, EXISTING AND PROPOSED ROADWAY INTERSECTIONS AND MEDIAN BREAKS ARE LOCATED ON THE **CONCEPT PLAN**.
 - ALL MAJOR ROADS ADJACENT TO THE SUBJECT PROPERTY IDENTIFIED IN THE COUNTY TRANSPORTATION AND/OR THE CURRENT LOUDOUN COUNTY / VDOT 6-YEAR PLAN ARE SHOWN.
 - THE TRAFFIC CIRCULATION IS SHOWN ON SHEET 4 OF 7.
 - SEE SHEET 5 **CONCEPT / SPEX PLAN OVER EXISTING CONDITIONS** SHEET FOR THE PROPOSED LAND USE OVER THE EXISTING CONDITIONS.
 - UTILITIES:
 - SANITARY SEWER TO BE CONNECTED TO EXISTING FACILITIES AND IS INCLUDED IN THE LOUDOUN WATER SERVICE AREA.
 - MUNICIPAL WATER TO BE CONNECTED TO EXISTING FACILITIES AND IS INCLUDED IN THE LOUDOUN WATER SERVICE AREA.
 - STORMWATER MANAGEMENT (SWM) AND BEST MANAGEMENT PRACTICES (BMP) ARE TO BE PROVIDED BY ADEQUATE OUTFALL TO THE MAJOR FLOOD PLAIN AND BY ON-SITE TREATMENT VIA A COMBINATION OF EXTENDED AND CONVENTIONAL FACILITIES WITH LOW IMPACT DESIGN METHODOLOGIES IN ACCORDANCE WITH FACILITIES STANDARDS MANUAL CRITERIA. LOW IMPACT METHODOLOGIES TO SATISFY BOTH SWM AND BMP REQUIREMENTS WILL BE THE PREFERRED APPROACH WHERE PRACTICAL.
 - THE DEVELOPMENT PROGRAM PROPOSES A SECURE BUSINESS PARK. THERE SHALL BE NO FACILITIES OPEN TO THE GENERAL PUBLIC.
 - ADJACENT PROPERTY:
 - FOR APPROVED AND EXISTING PROJECTS OR SUBDIVISION NAMES, LOT LINES, LOT NUMBERS AND ZONING SEE **VICINITY MAP**.
 - FOR EXISTING LOTS, AND USES WITHIN 500' OF SUBJECT PROPERTY, SEE **VICINITY MAP**.
 - THERE ARE ADJACENT OPEN SPACE EASEMENTS OR PARK AND RECREATION LAND. LOUDOUN COUNTY PHILIP A. BOLEN MEMORIAL PARK IS NORTH OF SYCOLIN CREEK AND COCHRAN MILL ROAD.
 - SEE **OPEN SPACE MAP** AND **ZONING TABULATIONS** TABLE ON THIS SHEET FOR DELINEATION AND DESCRIPTION OF OPEN SPACE AREAS.
 - SEE COVER SHEET FOR APPLICANT NAME AND SIGNATURE.
 - ALL PROPOSED TRAVELWAYS WITHIN THE SITE SHALL BE PRIVATE.
 - THE DEVELOPMENT OF THE SUBJECT PROPERTY WITH COMPLY WITH ALL LIGHTING, SIGNAGE AND NOISE STANDARDS PER THE FSM AND THE REVISED 1993 Z.O.

NOTES:
INFORMATION TABULATION

- THERE ARE NO DWELLING UNITS PROPOSED WITH THIS APPLICATION.
- SEE **ZONING TABULATIONS** TABLE FOR MAX SQUARE FEET OF BUILDING FLOOR AREA PROPOSED FOR NONRESIDENTIAL USES.
- SEE **ZONING TABULATIONS** TABLE FOR TOTAL LAND AREA.
- SEE **ZONING REQUIREMENTS** TABLE ON THIS SHEET FOR LOT AND BUILDING REQUIREMENTS.
- PARKING TO BE PROVIDED TO MEET THE MINIMUM REQUIREMENTS OF SECTION 5-1100 OF THE REVISED 1993 LOUDOUN COUNTY ZONING ORDINANCE.
- SITE LIGHTING WILL BE PROVIDED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF SECTION 5-1504 OF THE REVISED 1993 LOUDOUN COUNTY ZONING ORDINANCE.
- NOISE STANDARDS WILL BE PROVIDED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF SECTION 5-1507 OF THE REVISED 1993 LOUDOUN COUNTY ZONING ORDINANCE.



OPEN SPACE
SCALE: 1"=800'

NOTE:
OPEN SPACE WILL BE GREATER THAN OR EQUAL TO 50% OF NET LAND AREA. (SEE ZONING TABULATIONS TABLE FOR OPEN SPACE CALCULATIONS.)

ZONING TABULATIONS TABLE

OVERALL PD-IP SITE DENSITY TABULATION							
Gross District Area (ac)	Major Floodplain (Ac)	Net Area for FAR (Ac)	Maximum FAR (sf) (0.40)	Maximum FAR (sf) (0.60) PER SPEX	Proposed (sf) FAR PER SPEX	Proposed (%) FAR PER SPEX	Open Space Area (ac)
193.59	5.44	188.15	3,278,325.6	4,917,488.4	4,900,000	0.60	97.42

ZONING REQUIREMENTS TABLE

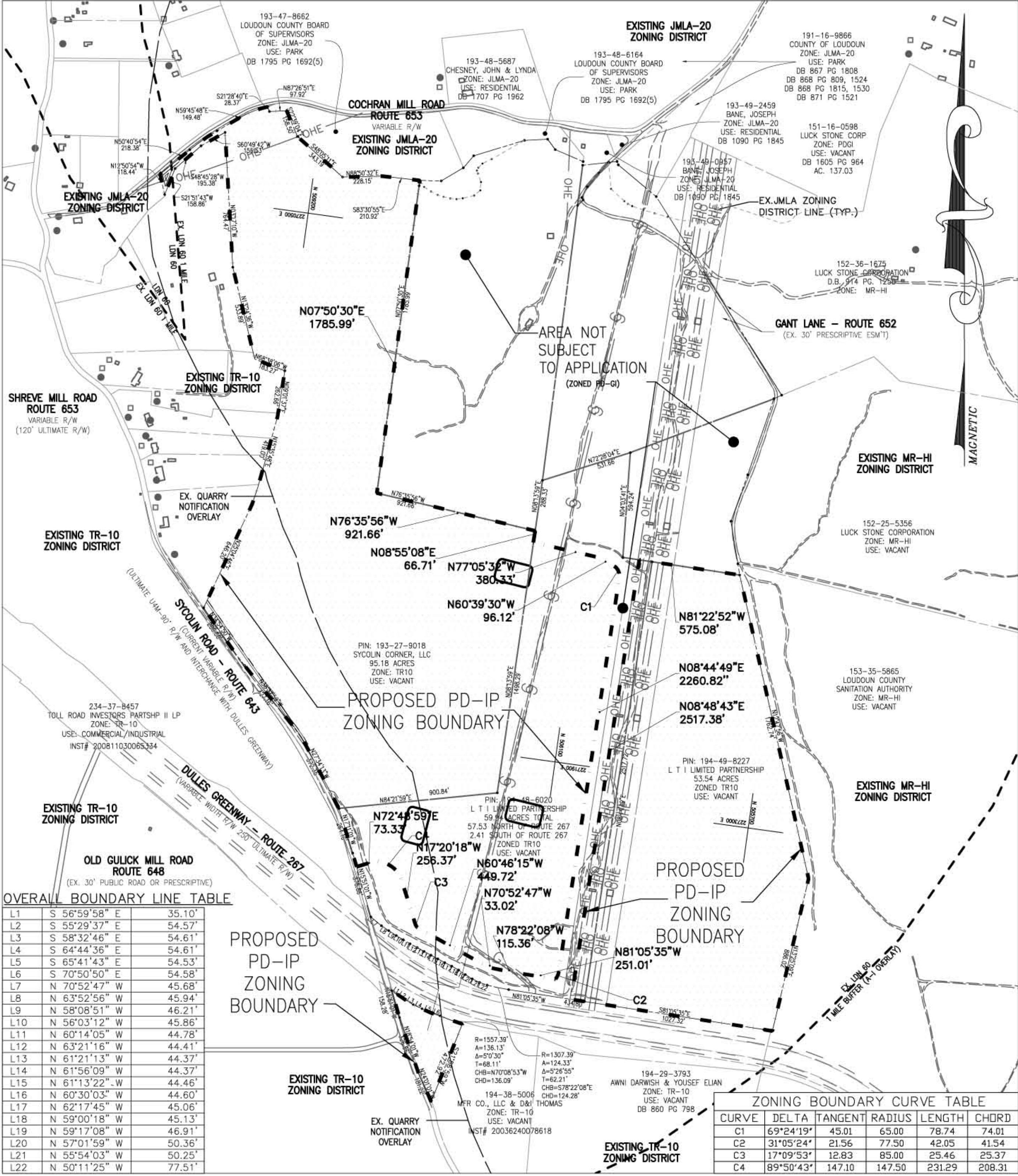
PD-IP LOT & BUILDING REQUIREMENTS				
		Ordinance Standard	Proposed	Zoning Ordinance Section
Lot Requirements				
District Size:		20 acre min.	193.97 ac	4-502
Lot Size (excluding floodplain):		1 acre min.		4-505(A)
Setbacks		Building	Parking	Building
Adjacent to Sycolin Road (Route 643)		75'	35'	75'
Adjacent to Other Road Right-of-Ways		35'	25'	35'
Adjacent to Dulles Greenway (Route 267)		150'	100'	150'
Adjacent to Interchange Ramps		75'	35'	75'
Adjacent to agricultural/residential		75'	60'	75'
Adjacent to other non-residential		15'	15'	15'
Yards				
Between buildings on individual lots or sites		30'	30'	4-505(B)(4)
Between buildings on same lot or site		25'	25'	4-505(B)(4)
Building Requirements				
Lot Coverage		0.45 max lot coverage	Less than or equal to 0.45	4-506(A)
Building Height		45' up to 100' with 1' additional setback for each 1' above 45'	100' without additional setback	4-506(B) / Zoning Modification
FAR		0.40	0.60	4-506(C.) SPEX 2008-0068
Landscaping Requirements				
Open Space (20% of Buildable Area)		20%	Equal to or greater than 20%	4-507(B)

ZONING MODIFICATION MATRIX	
Section	Requirement
PD-IP Zoning District	
4-502	Size and Location
4-506 (B)	Building Height
4-507(C)	Screening & Buffering
See Proffers and Statement of Justification for details of the modification requests.	

PROPOSED SPEX LAND USES	
Office per Z.O. Section: 4-504(A)	
Increase allowable FAR to 0.60 for office use	
Water storage tank	
Water Treatment Plant	
Firing Range / Archery Range Indoor	
Utility substation transmission	

REZONING PLAT

SCALE: 1"=400'



SUPPLEMENTAL DISTRICT REGULATIONS:

SECTION 5-616 UTILITY SUBSTATIONS. THE FOLLOWING STANDARDS SHALL APPLY TO THE DEVELOPMENT OF UTILITY SUBSTATIONS.

- UTILITY SUBSTATION, TRANSMISSION.
 - IN ALL AGRICULTURAL AND RESIDENTIAL DISTRICTS, UTILITY SUBSTATIONS SHALL BE LOCATED ON LOTS OF ONE (1) ACRE OR MORE.
 - IN ALL COMMERCIAL AND INDUSTRIAL DISTRICTS, UTILITY SUBSTATIONS SHALL BE LOCATED ON AT LEAST THE MINIMUM LOT SIZE OF THE DISTRICT.
- UTILITY SUBSTATION, DISTRIBUTION.
 - IN ALL AGRICULTURAL AND RESIDENTIAL DISTRICTS, UTILITY SUBSTATIONS SHALL BE LOCATED ON LOTS OF ONE (1) ACRE OR MORE.
 - IN ALL COMMERCIAL AND INDUSTRIAL DISTRICTS, UTILITY SUBSTATIONS SHALL BE LOCATED ON LOTS OF ONE (1) ACRE OR MORE.
- ALL UTILITY SUBSTATIONS SHALL BE LOCATED IN AREAS CONSISTENT WITH THE ADOPTED COMPREHENSIVE PLAN. A COMMISSION PERMIT SHALL BE REQUIRED UNLESS THE UTILITY SUBSTATION IS SPECIALLY DELINEATED IN THE COMPREHENSIVE PLAN.
- ALL UTILITY TRANSMISSION AND DISTRIBUTION SUBSTATIONS AND ACCESSORY STORAGE YARDS SHALL HAVE A MINIMUM TYPE FOUR (4) BUFFER YARD.
- SUCH UTILITIES MAY BE ACCESSED BY A PRIVATE ACCESS EASEMENT.

REVISIONS

1. REVISED PER CLIENT AND COUNTY COMMENTS 8-11-10

2. REVISED PER COUNTY COMMENTS 12-15-10

3. REVISED PER COUNTY COMMENTS 2-18-11

SURVEY

DESIGN

DRAWN

C. STEPHENSON

C. STEPHENSON

CHECKED

DATE

July, 2009

SCALE

HORIZ: 1"=200'

VERT: N/A

REZONING PLAT / NOTES, TABULATIONS & REQUIREMENTS

STONEWALL SECURE BUSINESS PARK

ZMAP 2008-0017 & SPEX 2008-0068, 2008-0069, 2008-0070, 2010-0018, 2010-0034 & CMPT 2010-0014

CATCOTIN ELECTION DISTRICT LOUDOUN COUNTY, VIRGINIA

JOB

2720-0102

CADD

Sheet

2 OF 7

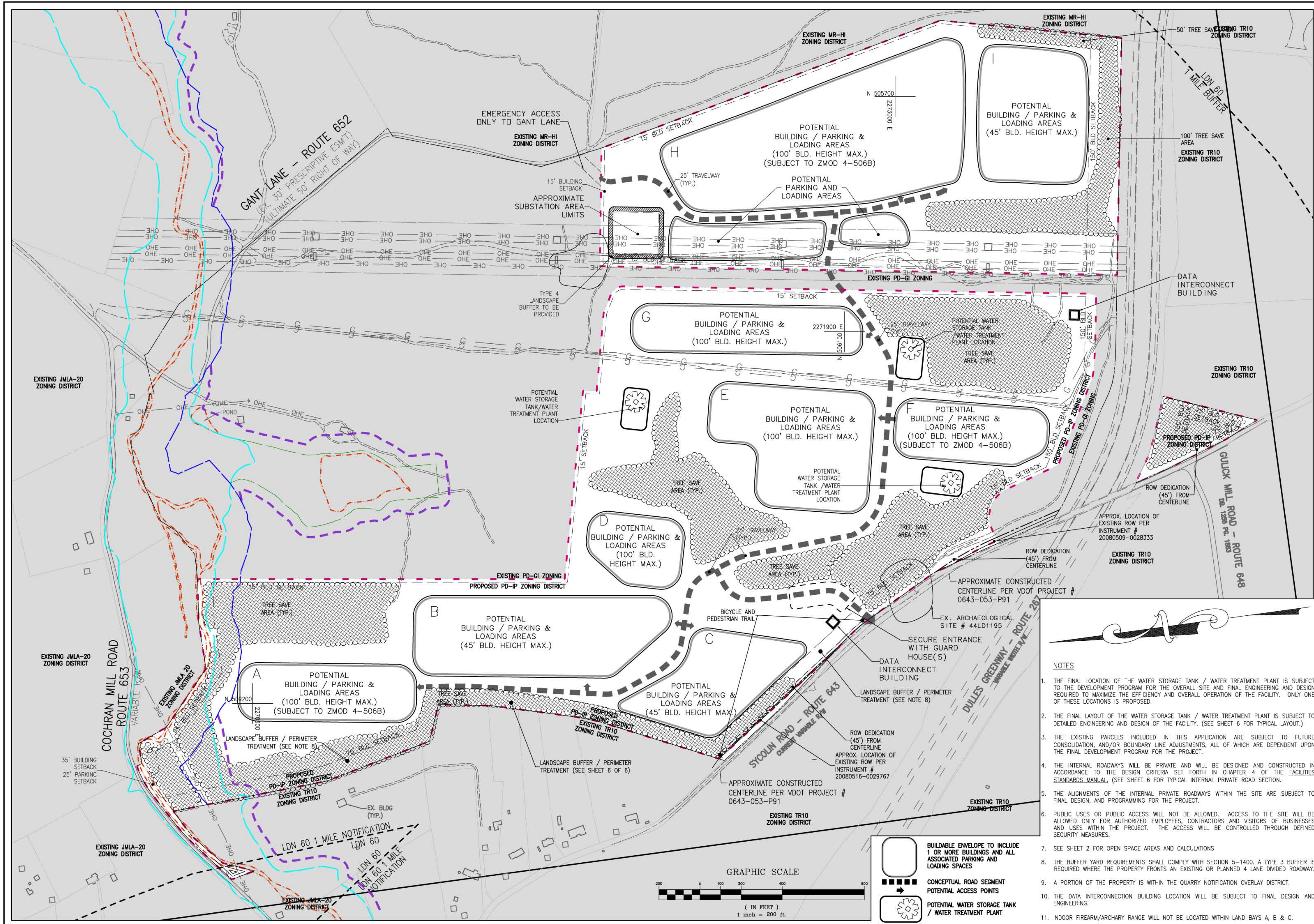
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William H. Gordon Associates, Inc.

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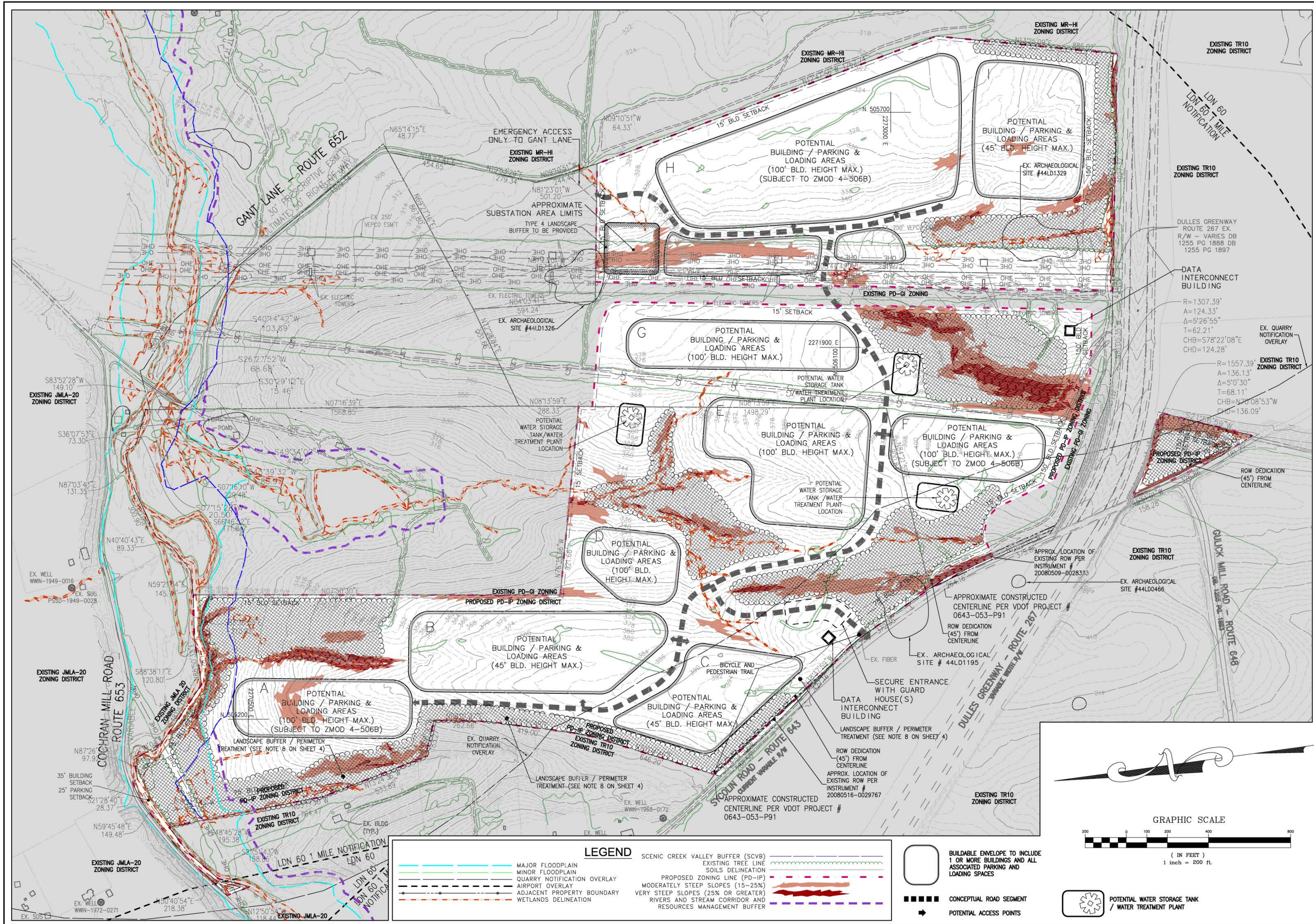
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- NOTES**
1. THE FINAL LOCATION OF THE WATER STORAGE TANK / WATER TREATMENT PLANT IS SUBJECT TO THE DEVELOPMENT PROGRAM FOR THE OVERALL SITE AND FINAL ENGINEERING AND DESIGN REQUIRED TO MAXIMIZE THE EFFICIENCY AND OVERALL OPERATION OF THE FACILITY. ONLY ONE OF THESE LOCATIONS IS PROPOSED.
 2. THE FINAL LAYOUT OF THE WATER STORAGE TANK / WATER TREATMENT PLANT IS SUBJECT TO DETAILED ENGINEERING AND DESIGN OF THE FACILITY. (SEE SHEET 6 FOR TYPICAL LAYOUT.)
 3. THE EXISTING PARCELS INCLUDED IN THIS APPLICATION ARE SUBJECT TO FUTURE CONSOLIDATION, AND/OR BOUNDARY LINE ADJUSTMENTS, ALL OF WHICH ARE DEPENDENT UPON THE FINAL DEVELOPMENT PROGRAM FOR THE PROJECT.
 4. THE INTERNAL ROADWAYS WILL BE PRIVATE AND WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE TO THE DESIGN CRITERIA SET FORTH IN CHAPTER 4 OF THE FACILITIES STANDARDS MANUAL, (SEE SHEET 6 FOR TYPICAL INTERNAL PRIVATE ROAD SECTION).
 5. THE ALIGNMENTS OF THE INTERNAL PRIVATE ROADWAYS WITHIN THE SITE ARE SUBJECT TO FINAL DESIGN, AND PROGRAMMING FOR THE PROJECT.
 6. PUBLIC USES OR PUBLIC ACCESS WILL NOT BE ALLOWED. ACCESS TO THE SITE WILL BE ALLOWED ONLY FOR AUTHORIZED EMPLOYEES, CONTRACTORS AND VISITORS OF BUSINESSES AND USES WITHIN THE PROJECT. THE ACCESS WILL BE CONTROLLED THROUGH DEFINED SECURITY MEASURES.
 7. SEE SHEET 2 FOR OPEN SPACE AREAS AND CALCULATIONS
 8. THE BUFFER YARD REQUIREMENTS SHALL COMPLY WITH SECTION 5-1400. A TYPE 3 BUFFER IS REQUIRED WHERE THE PROPERTY FRONTS AN EXISTING OR PLANNED 4 LANE DIVIDED ROADWAY.
 9. A PORTION OF THE PROPERTY IS WITHIN THE QUARRY NOTIFICATION OVERLAY DISTRICT.
 10. THE DATA INTERCONNECTION BUILDING LOCATION WILL BE SUBJECT TO FINAL DESIGN AND ENGINEERING.
 11. INDOOR FIREARM/ARCHERY RANGE WILL NOT BE LOCATED WITHIN LAND BAYS A, B & C.

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3.	REVISED PER COUNTY COMMENTS 2-18-11
SURVEY	
DESIGN	
DRAWN	
C. STEPHENSON	
CHECKED	
C. STEPHENSON	
DATE	
July, 2009	
SCALE	
HORIZ: 1"=200'	
VERT: N/A	
CONCEPT PLAN	
(ZMAP/SPEX/PLAT)	
STONEWALL SECURE BUSINESS PARK	
ZMAP 2008-0017 & SPEX 2008-0068, 2008-0069,	
2008-0070, 2010-0018, 2010-0034 & CMPT 2010-0014	
CATOCTIN ELECTION DISTRICT	
LOUDOUN COUNTY, VIRGINIA	
JOB	
2720-0102	
CADD	
SHEET	
4 OF 7	

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C. STEPHENSON	
DATE	
July, 2009	
SCALE	
HORIZ: 1"=200'	
VERT: N/A	
CONCEPT / SPEX PLAN OVER EXISTING CONDITIONS	
STONEWALL SECURE BUSINESS PARK	
ZMAP 2008-0017 & SPEX 2008-0068, 2008-0069,	
2008-0070, 2010-0018, 2010-0034 & CMPT 2010-0014	
CATOCTIN ELECTION DISTRICT	
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5 OF 7	

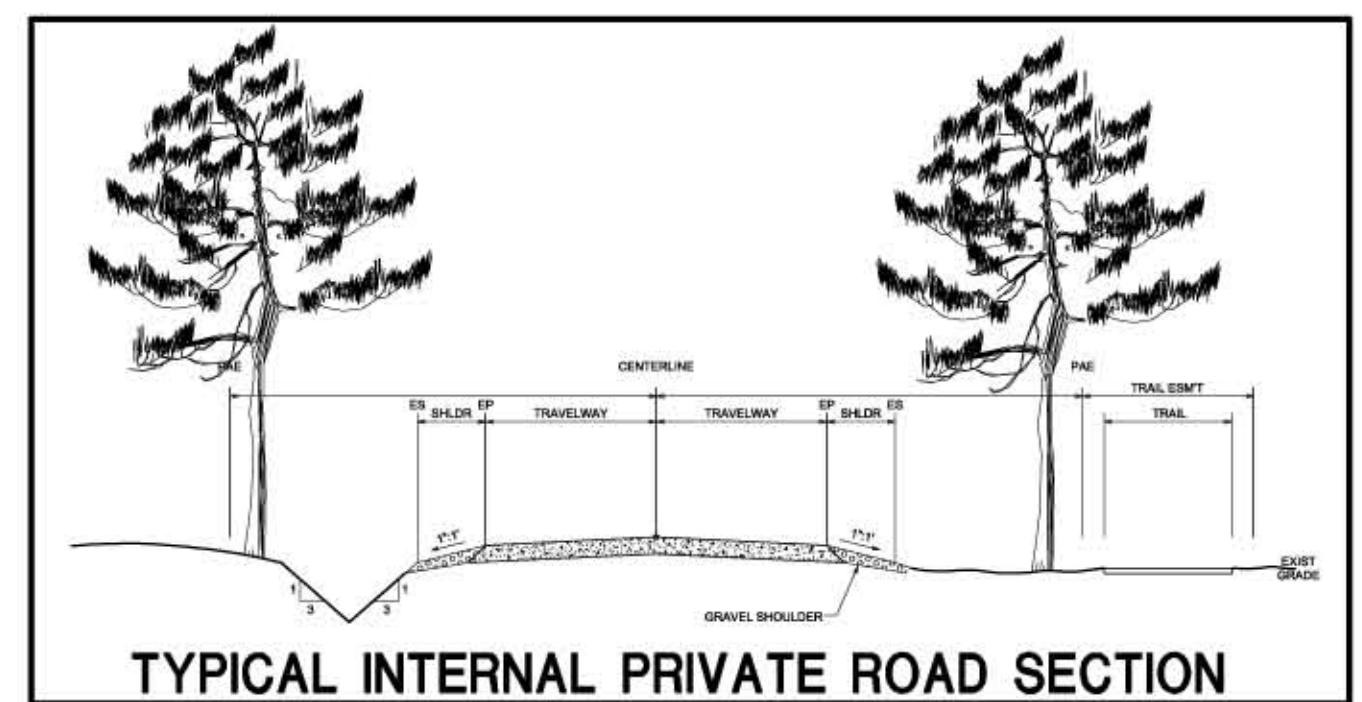
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MIN. 50' LANDSCAPE
BUFFER AREA

VARIABLE WIDTH SECURITY ZONE WITH
PERIMETER TREATMENT
(SEE SHEETS 4 AND 5 FOR LOCATIONS)

NOTE:
EXISTING TREES AND VEGETATION WILL BE RETAINED
AND SUPPLEMENTED WITH PLANTINGS TO THE MINIMUM
LANDSCAPE BUFFER REQUIREMENTS WITHIN THE 50'
LANDSCAPE BUFFER/PERIMETER AREA.

(PROPERTY LINE)



- NOTES**
1. THIS TYPICAL DETAIL FOR THE WATER STORAGE TANK / WATER TREATMENT FACILITY IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO DETAILED ENGINEERING AND DESIGN. THE ABOVE DETAIL IS AN EXAMPLE AND MAY BE MODIFIED AND/OR EXPANDED AS WARRANTED TO MEET PROJECT BUILDOUT PROJECTIONS.
 2. IN ADDITION TO FINAL ENGINEERING AND DESIGN, THE LAYOUT OF THE WATER STORAGE TANK / WATER TREATMENT FACILITY IS SUBJECT TO CHANGE PER THE DEVELOPMENT PROGRAM FOR THE OVERALL SITE, AS REQUIRED TO MAXIMIZE THE EFFICIENCY AND OVERALL OPERATION OF THE FACILITY.
 3. THE WATER STORAGE TANK WILL BE SETBACK A MINIMUM OF 120' FROM THE PROPERTY LINE OR IN THE SPECIFIC AREAS THERE WILL BE A 100' MAX. BUILDING HEIGHT LIMITATION AS DEPICTED ON SHEET 4.



- NOTES:**
1. THIS TYPICAL ELEVATION DETAIL FOR THE WATER STORAGE TANK / WATER TREATMENT FACILITY IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS SUBJECT TO CHANGE PER FINAL DESIGN CRITERIA SUBJECT TO ZONING ADMINISTRATOR APPROVAL. THE ABOVE DETAIL IS AN EXAMPLE AND MAY BE MODIFIED AND/OR EXPANDED AS WARRANTED TO MEET PROJECT BUILDOUT PROJECTIONS.
 2. IN ADDITION TO FINAL ENGINEERING AND DESIGN, THE WATER STORAGE TANK / WATER TREATMENT FACILITY SIZE AND DIMENSION ARE SUBJECT TO CHANGE PER THE DEVELOPMENT PROGRAM FOR THE OVERALL SITE, AS REQUIRED TO MAXIMIZE THE EFFICIENCY AND OVERALL OPERATION OF THE FACILITY.

- NOTES: SECURITY MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:
- BERM SECURITY MAY BE ENHANCED BY ORNAMENTAL ELEMENTS INCLUDING HOSTILE VEGETATION, BOULDERS, WATER FEATURES AND FENCING
 - TRAFFIC CONTROL TO BE ENHANCED USING FEATURES SUCH AS SPEED BUMPS, CURVILINEAR ALIGNMENTS, AND NARROW TRAVELWAYS
 - FENCING MAY BE INCLUDED ALONG SITE PERIMETER
 - CAMERAS AND ASSOCIATED LIGHTING TO BE ADDED AS NEEDED
 - SECURITY MEASURES SHOWN ON THIS PLAN ARE FOR ILLUSTRATIVE PURPOSES ONLY AND ARE SUBJECT TO FINAL SECURITY DESIGN.

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SURVEY	
DESIGN	
DRAWN C.STEPHENSON	
CHECKED C. STEPHENSON	
	
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DATE	July, 2009
SCALE:	HORIZ: N/A VERT: N/A
WATER STORAGE / MISCELLANEOUS DETAILS	
STONEWALL SECURE BUSINESS PARK ZMAP 2008-0017 & SPEX 2008-0068, 2008-0069, 2008-0070, 2010-0018, 2010-0034 & CMPT 2010-0014 CATOCTIN ELECTION DISTRICT LOUDOUN COUNTY, VIRGINIA	
JOB#	2720-0102
CADD	
SHEET	6 OF 7

ACCESS CONTROL OPTIONS

- GRAB BARRIER (FORM OF RETRACTABLE BOLLARD)



- ELECTRIC WEDGE (FORM OF RETRACTABLE BOLLARD)

- TRADITIONAL RETRACTABLE BOLLARD



- CRASH RATED BARRIER ARM

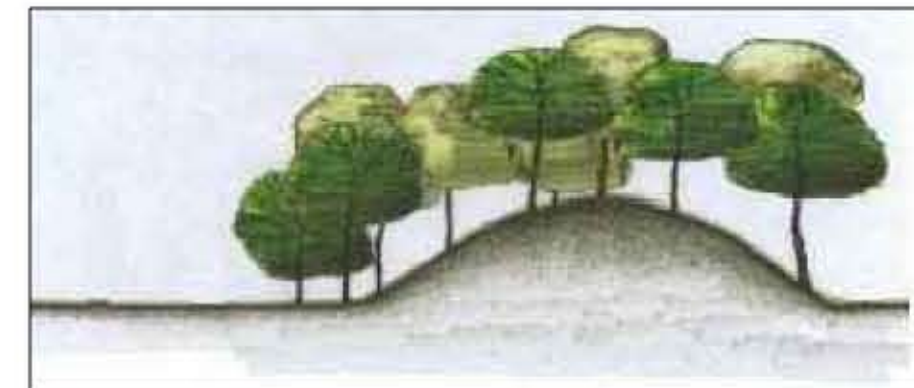


PERIMETER SECURITY TREATMENT OPTIONS

- IMPLEMENT STORM WATER MANAGEMENT AS PART OF ACCESS CONTROL
- IMPLEMENT TRAFFIC CALMING MEASURES TO DETER HASTY EXITS.



- BERM WITH LANDSCAPING
- KEEP SHRUBS TO 2' HEIGHT MAX AND LIMB UP TREES TO 6' TO MAINTAIN SIGHT LINES THROUGHOUT PERIMETER



- SECURITY FENCING



- BERM WITH BOULDERS
(BOULDERS EXISTING ON
SITE)



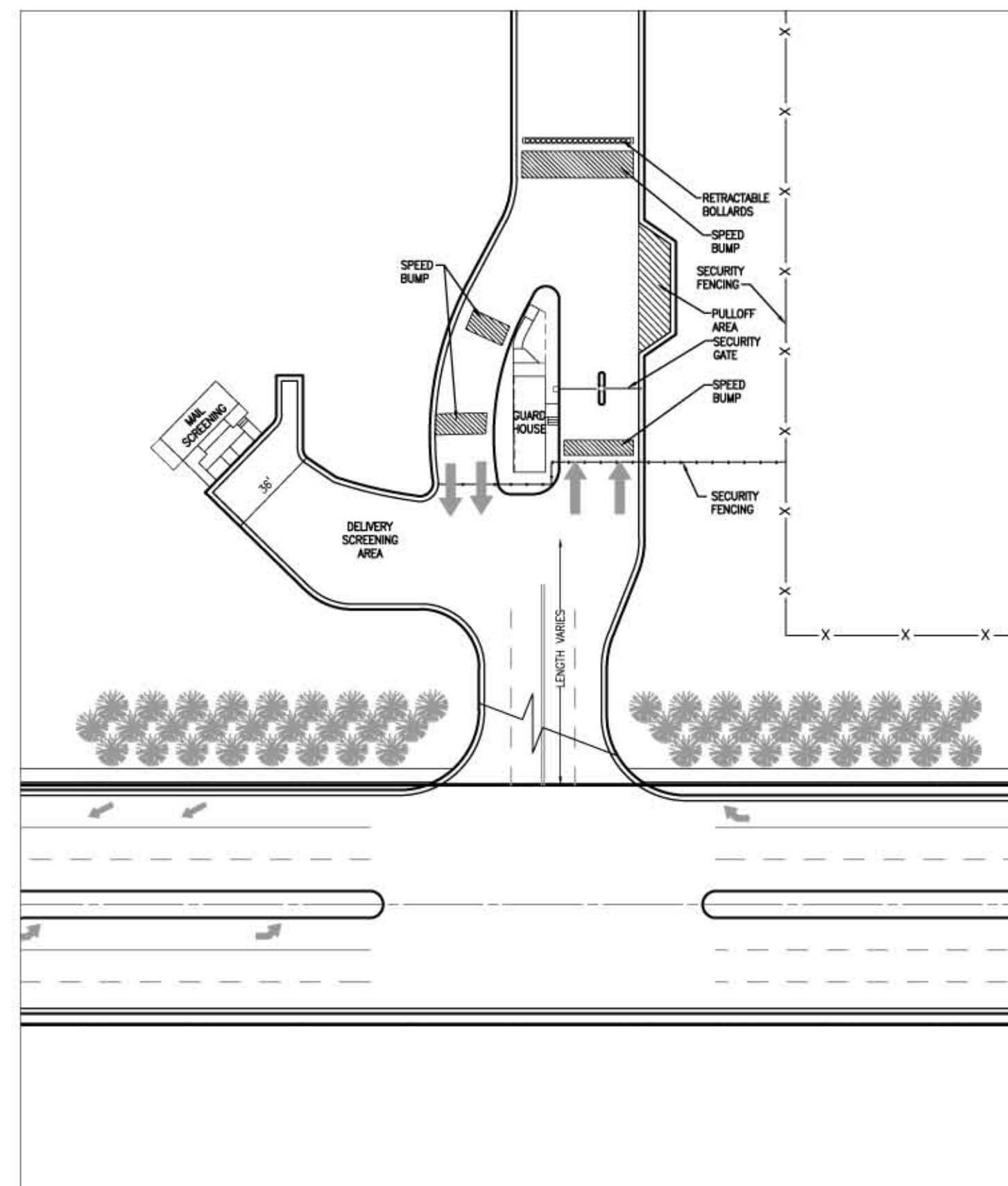
- FENCING MAY BE ENHANCED TO HEIGHTEN SECURITY LEVEL BY SECURING THE BASE TO PREVENT DIGS. CAMERAS AND APPROPRIATE LIGHTING MAY BE ADDED TO THE TOP.

- ROADSIDE SWALE WITH RETENTION OPPORTUNITY FOR STORMWATER MANAGEMENT PROGRAM.



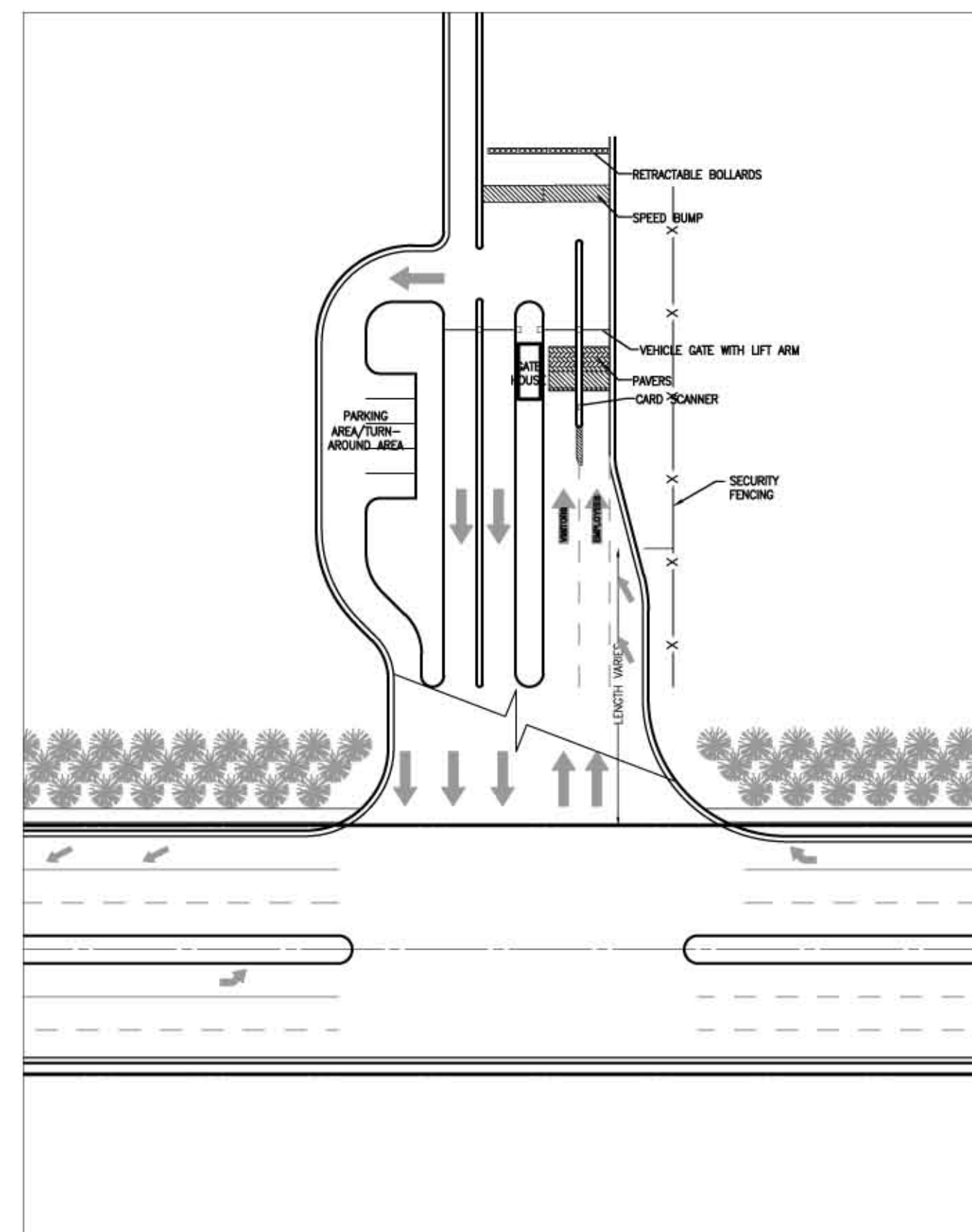
ENTRANCE EXAMPLE #1
(FOR ILLUSTRATIVE PURPOSES ONLY)

SCALE: 1"=50'



ENTRANCE EXAMPLE #2
(FOR ILLUSTRATIVE PURPOSES ONLY)

SCALE: 1"=50'



NOTES:

- THE ABOVE ENTRANCES ARE EXAMPLES AND MAY BE MODIFIED AND/OR EXPANDED AS WARRANTED TO MEET PROJECT BUILDOUT PROJECTIONS.

THIS SHEET IS FOR INFORMATIONAL PURPOSES ONLY AND NOT PROFFERED

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<div> <div>SURVEY</div> <div> <div>DESIGN</div> <div>C.STEPHENSON</div> </div> </div>	
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<div> <div>  <div> <div>ONE ENGINEERING - SURVEY · LANDSCAPE ARCHITECTURE · LAND PLANNING · SITE SECURITY CONSULTING</div> <div> <div>IOS</div> <div>William H. Gordon Associates, Inc.</div> <div>4501 Dely Drive · Chantilly, Virginia 20151</div> <div>(703) 263-1900 · METRO (703) 803-9508 · FAX (703) 263-0766</div> <div>www.wingco.com</div> </div> </div> </div> </div>	
<div> <div>DATE</div> <div>July, 2009</div> </div>	
<div> <div>SCALE</div> <div> <div>HORZ:</div> <div>VERT: N/A</div> </div> </div>	
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<div> <div>SHEET</div> <div>7 OF 7</div> </div>	